

PROJECT INFORMATION

Project Title	Lower Deer Creek Revegetation Project
Brief Description	<p>The project site is located on private land at the confluence of Deer and Squirrel Creeks in Nevada County, approximately 2 miles downstream of the township of Lake Wildwood, and is subject to a conservation easement. Habitat features at the site include meadow, chaparral and mixed oak woodland which are severely impacted by non-native invasive vegetation, especially Yellow Star thistle and Scotch broom. This land includes the only meadow in the lower watershed. The project will implement effective forest management techniques to remove non-native plant species and revegetate with natives in 5 critical acres of meadow, riparian and upland habitat in the Deer Creek watershed. This project will:</p> <ol style="list-style-type: none"> 1. Preserve mixed conifer forest health; 2. Restore native vegetative communities in a degraded meadow; 3. Reduce the fire risk for the communities of Penn Valley, Smartsville, and Lake Wildwood; 4. Improve water quality in Lower Deer Creek; 5. Increase carbon sequestration capacity by increasing plant biomass; 6. Increase habitat diversity to increase resilience to climate change and development pressures.
Total Requested Amount	112,932.00
Other Fund Proposed	117,683.00
Total Project Cost	230,615.00
Project Category	Site Improvement/Restoration
Project Area/Size	5
Project Area Type	Acres
Have you submitted to SNC this fiscal year?	No
Is this application related to other SNC funding?	No

Project Results
Restoration

Project Purpose	Project Purpose Percent
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Water Quality	
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County
Nevada

Sub Region
Central

PROJECT CONTACT INFORMATION

Name	Ms. Joanne Hild,
Title	Executive Director
Organization	Sierra Streams Institute
Primary Address	431 Uren Street, Suite C, , , Nevada City, CA, 95959
Primary Phone/Fax	530-265-6090 Ext. 200
Primary Email	joanne@sierrastreamsinstitute.org

PROJECT LOCATION INFORMATION

Project Location

Address:	11738 Mooney Flat Rd., , , Penn Valley, CA, 95946 United States
Water Agency:	Nevada Irrigation District
Latitude:	39.2301
Longitude:	-121.2447
Congressional District:	n/a
Senate:	n/a
Assembly:	n/a
Within City Limits:	No
City Name:	

ADDITIONAL INFORMATION

Grant Application Type

Grant Application Type: Category One Site Improvement
Grant Application Type: Category One Site Improvement

PROJECT OTHER CONTACTS INFORMATION

Other Grant Project Contacts
Name: Joanne Hild, Project Role: Day-to-Day Responsibility Phone: 5302656090 Phone Ext: E-mail: joanne@sierrastreams.org

UPLOADS

The following pages contain the following uploads provided by the applicant:

Upload Name
Completed Application Checklist
Table of Contents
Full Application Form
Authorization to Apply or Resolution
Narrative Descriptions
Detailed Budget Form
Restrictions/Agreements
Regulatory Requirements or Permits
CEQA Documentation
Letters of Support
Long Term Management Plan
Project Location Map
Parcel Map Showing County Assessors Parcel Number
Topographic Map

Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Photos of the Project Site
Land Tenure- Only for Site Improvement Projects
Site Plan - Only Site Improv. or Restoration Proj.
Letters of Support

To preserve the integrity of the uploaded document, headers, footers and page numbers have not been added by the system.

Appendix B1

Full Application Checklist

Project Name: Lower Deer Creek Revegetation Project

Applicant: Sierra Streams Institute

Please mark each box: check if item is included in the application; mark "N/A" if not applicable to the project. "N/A" identifications must be explained in the application. Please consult with SNC staff prior to submission if you have any questions about the applicability to your project of any items on the checklist. All applications must include a CD including an electronic file of each checklist item, if applicable. The naming convention for each electronic file is listed after each item on the checklist. (Electronic File Name = EFN: "naming convention". file extension choices)

Submission requirements for all Category One and Category Two Grant Applications

1. ☒ Completed Application Checklist (EFN: *Checklist.doc, .docx, .rtf, or .pdf*)
2. ☒ Table of Contents (EFN: *TOC.doc, .docx, .rtf, or .pdf*)
3. ☒ Full Application Project Information Form (EFN: *SIform.doc, .docx, .rtf, or .pdf*)
4. ☒ Authorization to Apply or Resolution (EFN: *authorization.doc, .docx, .rtf, or .pdf*)
5. ☒ Narrative Descriptions - Submit a single document that includes each of the following narrative descriptions (EFN: *Narrative.doc, .docx, .rtf*)
 - a. ☒ Detailed Project Description (5,000 character maximum)
 - ☒ Project Description including Goals/Results, Scope of Work, Location, Purpose, etc.
 - ☒ Project Summary
 - ☒ Environmental Setting
 - b. ☒ Workplan and Schedule (1,000 character maximum)
 - c. ☒ Restrictions, Technical/Environmental Documents and Agreements(1,000 character maximum)
 - d. ☒ Organizational Capacity(1,000 character maximum)
 - e. ☒ Cooperation and Community Support (1,000 character maximum)
 - f. ☒ Long Term Management and Sustainability (1,000 character maximum)
 - g. ☒ Performance Measures (1,000 character maximum)
6. Supplemental and Supporting documents
 - a. ☒ Detailed Budget Form (EFN: *Budget.xls, .xlsx*)
 - b. Restrictions, Technical/Environmental Documents and Agreements, as applicable
 - ☒ Restrictions / Agreements (EFN: *RestAgree.pdf*)
 - ☒ Regulatory Requirements / Permits (EFN: *RegPermit.pdf*)

- ☒ California Environmental Quality Act (CEQA) documentation (EFN: CEQA.pdf)
- ☐ National Environmental Policy Act (NEPA) documentation (EFN: NEPA.pdf) NOT APPLICABLE
- c. Cooperation and Community Support
- ☒ Letters of Support (EFN: LOS.pdf)
- d. Long-Term Management and Sustainability NOT APPLICABLE
- ☒ Long-Term Management Plan (EFN: LTMP.pdf)
- e. Maps and Photos
- ☒ Project Location Map (EFN: LocMap.pdf)
- ☒ Parcel Map showing County Assessor's Parcel Number(s) (EFN: ParcelMap.pdf)
- ☒ Topographic Map (EFN: Topo.pdf)
- ☒ Photos of the Project Site (10 maximum) (EFN: Photo.jpg, .gif)
- f. Additional submission requirements for Conservation Easement Acquisition applications only
- ☐ Acquisition Schedule (EFN: acqSched.doc, .docx, .rtf, .pdf)
- ☐ Willing Seller Letter (EFN: WillSell.pdf)
- ☐ Real Estate Appraisal (EFN: Appraisal.pdf)
- ☐ Conservation Easement Language (EFN: CE.pdf)
- g. Additional submission requirements for Site Improvement / Restoration Project applications only
- ☒ Land Tenure Documents – attach only if documentation was not included with Pre-application (EFN: Tenure.pdf)
- ☒ Site Plan (EFN: SitePlan.pdf)
- ☒ Leases or Agreements (EFN: LeaseAgmnt.pdf)

I certify that the information contained in the Application, including required attachments, is accurate.


Signed _____ (Authorized Representative)

1/19/2012

Date

Joanne Hild, Executive Director

Name and Title (print or type)

2. Table of Contents

1.	Completed Checklist	-----	1
2.	Table of Contents	-----	3
3.	Application form	-----	4
4.	Board Authorization to Apply	-----	6
5.	Narrative Descriptions	-----	7
6a.	Detailed Budget Form	-----	17
6b.	Restrictions/Technical Documents/Agreements	-----	18
6b.	Regulatory Requirements	-----	22
6b.	CEQA	-----	52
6c.	Cooperation and Community Support	-----	69
6d.	Long term Management	-----	78
6e.	Maps and Photos	-----	87
6g.	Land Tenure Document	-----	101
6g.	Site Plan	-----	105
6g.	Leases or Agreements	-----	107

Appendix B2

SIERRA NEVADA CONSERVANCY PROPOSITION 84 - PROJECT INFORMATION FORM

Rev. August 2011

PROJECT NAME Lower Deer Creek Revegetation Project

APPLICANT NAME (Legal name, address, and zip code)

Sierra Streams Institute
431 Uren Street Suite C
Nevada City, CA 95959

PERSON WITH FISCAL MANAGEMENT RESPONSIBILITY FOR GRANT CONTRACT/INVOICING

Name and title – type or print

Phone

Email Address

☐ Mr.

☒ Ms. Joanne Hild (530)265-6090 x200 joanne@sierrastreams.org

COUNTY ADMINISTRATOR OR PLANNING DIRECTOR CONTACT INFORMATION (At least one entry is required)

Name: Brian Foss

Phone Number: (530)265-1222

Email address: planning@co.nevada.ca.us

Name:

Phone Number:

Email address:

NEAREST PUBLIC WATER AGENCY (OR AGENCIES) CONTACT INFORMATION (At least one entry is required)

Name: Nevada Irrigation District

Phone Number: (530)273-6185

Email address: admindepartment@nid.dst.ca.us

Name: Nevada County Sanitation District #1

Phone Number: (530)265-1411

Email address: scott.joslyn@co.nevada.ca.us

Please identify the appropriate project category below and provide the associated details (Choose One)

☒ Category One Site Improvement

☐ Category Two Pre-Project Activities

☐ Category One Conservation Easement Acquisition

☐ **Site Improvement/Conservation Easement Acquisition**

Project area: Confluence of Deer Creek and Squirrel Creek, 2 miles downstream of Lake Wildwood in Nevada County

Total Acres: 5

SNC Portion (if different): _____

Select one primary Site Improvement/Conservation Easement Acquisition deliverable

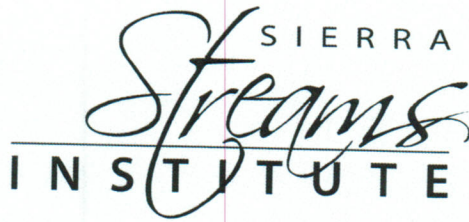
☒ Restoration

☐ Enhancement

☐ Resource Protection

☐ Infrastructure Development / Improvement

<p>Total Miles (i.e. river or stream bank): <1 SNC Portion (if different): _____</p> <p>For Conservation Easement Acquisitions Only</p> <p><input type="checkbox"/> Appraisal Included</p> <p><input type="checkbox"/> Will submit appraisal by _____</p>	<p><input type="checkbox"/> Conservation Easement</p>								
<p><input type="checkbox"/> Pre-Project Activities</p>	<p>Select <u>one</u> primary Pre-Project deliverable</p> <table><tr><td><input type="checkbox"/> Permit</td><td><input type="checkbox"/> Condition Assessment</td></tr><tr><td><input type="checkbox"/> CEQA/NEPA Compliance</td><td><input type="checkbox"/> Biological Survey</td></tr><tr><td><input type="checkbox"/> Appraisal</td><td><input type="checkbox"/> Environmental Site Assessment</td></tr><tr><td><input type="checkbox"/> Plan</td><td></td></tr></table>	<input type="checkbox"/> Permit	<input type="checkbox"/> Condition Assessment	<input type="checkbox"/> CEQA/NEPA Compliance	<input type="checkbox"/> Biological Survey	<input type="checkbox"/> Appraisal	<input type="checkbox"/> Environmental Site Assessment	<input type="checkbox"/> Plan	
<input type="checkbox"/> Permit	<input type="checkbox"/> Condition Assessment								
<input type="checkbox"/> CEQA/NEPA Compliance	<input type="checkbox"/> Biological Survey								
<input type="checkbox"/> Appraisal	<input type="checkbox"/> Environmental Site Assessment								
<input type="checkbox"/> Plan									



Resolution Approving the Application for Grant Funds for the Sierra Nevada Conservancy Proposition 84 Grants Program under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006

WHEREAS, the Legislature and Governor of the State of California have provided Funds for the program shown above; and

WHEREAS, the Sierra Nevada Conservancy (SNC) has been delegated the responsibility for the administration of a portion of these funds through a local assistance grants program, establishing necessary procedures; and

WHEREAS, said procedures established by the Sierra Nevada Conservancy require a resolution certifying the approval of an application by the Applicant's governing board before submission of said application to the SNC; and

WHEREAS, the Applicant, if selected, will enter into an agreement with the SNC to carry out the project; and

WHEREAS, Sierra Streams Institute has identified the Lower Deer Creek Revegetation Project as valuable towards meeting its mission and goals.

BE IT HEREBY RESOLVED by the Board of Directors of Sierra Streams Institute that this Board:

1. Approves the submittal of an application for the Lower Deer Creek Revegetation Project; and
2. Certifies that Applicant understands the assurances and certification requirements in the application; and
3. Certifies that Applicant or title holder will have sufficient funds to operate and maintain the resource(s) consistent with the long-term benefits described in support of the application; or will secure the resources to do so; and
4. Certifies that Applicant will comply with all legal requirements as determined during the application process; and
5. Appoints Joanne Hild, or designee, as agent to conduct all negotiations, execute and submit all documents, including but not limited to: applications, agreements, payment requests, and so on, which may be necessary for the completion of the aforementioned project.

PASSED AND ADOPTED by Sierra Streams Institute at a regular meeting held on the 13th day of December, 2011 by the following vote:

Ayes: 4 Nays: ____ Abstain: ____ Absent: 1

Attested by:

Mary Anne Kreshka
President, Board of Directors

a. Detailed Project Description Narrative

Project Summary: The project is an effort to implement effective forest management techniques in 5 critical acres of meadow, riparian and upland habitat in the Deer Creek watershed, in order to:

- preserve mixed conifer forest health
- restore native vegetative communities in a degraded meadow
- reduce the fire risk for Penn Valley, Smartsville, and Lake Wildwood
- improve water quality
- increase carbon sequestration capacity by increasing plant biomass
- increase habitat diversity to increase resilience to climate change and development pressures

Environmental Setting: The project site is located on private land at the confluence of Deer and Squirrel Creeks, approximately 2 miles downstream of Lake Wildwood, and is subject to a conservation easement. The habitat at the site is chaparral and mixed oak woodland, severely impacted by non-native invasive vegetation, especially Yellow star thistle and Scotch broom, and includes the only meadow in the lower watershed.

Project Description: This proposal is a unique opportunity to improve overall ecosystem health in a critically important 4.25 mile reach of Deer Creek, downstream from the Lake Wildwood community to the confluence with the Yuba River, as well as 1 mile of Squirrel Creek upstream of its confluence with Deer Creek. This proposal represents one step within the greater project scope, with the ultimate goal of implementing restoration of the entire reach. The mouth of Deer Creek is spawning and juvenile rearing ground for 3 listed species of salmon and steelhead, whose habitat is threatened by Lake Wildwood dam and reservoir located just upstream. Ownership downstream of the dam is fragmented into private parcels, and the forest, meadow and riparian area are impacted by a high proportion of invasive weeds and dense vegetation resulting from decades of fire suppression. Both land and water are severely degraded as a result of extensive grazing, mining, and reservoir and wastewater treatment plant impacts. The degraded state of this land decreases its resilience to climate change impacts. A high fire risk is posed to the neighboring communities of Penn Valley and Lake Wildwood by the high fuel load in the steep narrow canyons. The lower Deer Creek canyon is classified by CalFire as a Very High Fire Hazard Severity zone. In 1988 the 49er Fire raged through the Deer Creek canyon, burning 33,700 acres and destroying 312 structures between North San Juan and Lake Wildwood. Lake Wildwood is now a Firewise Community (firewise.org), and this project supports their efforts to make the Deer Creek canyon firesafe.

SSI has spent the last 15 years developing relationships with the property owners in this critical reach, and now has a unique opportunity to act as an agent for significant improvement of forest health. We will implement a plan that is not limited by private property boundaries, but treats the reach as a whole system. The overall project scope, shown in the attached Project Location Map, focuses on vegetation management on 350 acres of land with 9 different owners with whom we have developed partnerships. In this proposal, we will target five acres of property, held in a conservation easement by the Sheatsley Trust, a consortium of property owners.

The Sheatsley Trust property consists of 114 acres, mixed oak/pine woodland and foothill chaparral, along Deer Creek at the confluence with Squirrel Creek. The site includes SSI Sites 8, 9 and 16, monitoring sites since 2000 with right of access granted to SSI for monitoring and restoration purposes. The site is severely impacted by Scotch broom and Yellow star thistle, and was the target of a small pilot revegetation effort in 2010-11. The present proposal will target 5 acres, including a degraded meadow - the only meadow in the lower Deer Creek watershed, increasingly rare habitat, critical for the continued survival of threatened bird species and for overall ecosystem function and resilience to climate change impacts. The meadow is bordered by steep slopes, where the spread of invasive non-natives abruptly ends. The takeover of the meadow by invasives has greatly accelerated in recent years, and it is critical that further spread be stopped before it takes over the slopes, with potentially catastrophic wildfire consequences. Grazing in the meadow occurred for most of the 20th century, but since 2010 has ended completely, thanks to the collaborative partnership forged between SSI and the property owners, with the shared goal of protecting the watershed.

Project Goals:

1. Fuels Management: a) Improved overall forest ecosystem health and habitat structure; b) Implementation of wildfire prevention and safety measures; fire safe rural communities established, with economic and social benefits of reduced fire risk
2. Invasive Species Removal: a) Reduction of fuel load; b) Reduction of competitive pressures on native flora; c) Elimination of non-native species, reduction of seed availability for downstream transport;
3. Revegetation: a) Improvement in stability and health of upland, meadow and riparian ecosystem structure and function; b) Preservation of hydrological and soil nutrient balance; c) Preservation and restoration of native biodiversity and rare/endangered species; d) Reduction of erosion caused by cleared and/or thinned slopes; e) Increase in native food source, both plant and macroinvertebrate; f) Increase in nutrient uptake; g) Overall water quality improvement; h)

Restoration of native plant communities that are adapted to the natural fire regime, resulting in improved fire resiliency.

4. Restoration of Water Table: Removal of Scotch broom and other invasive non-natives to provide more water for the meadow and raise the water table, enhancing the natural water storage function of meadows.

5. Alignment with SNC Program Goals: The project clearly aligns with SNC's mission and addresses SNC's "triple bottom line" of environmental, economic and social well-being. Environmental benefits include improvement in forest health in a critical reach of Deer Creek immediately upstream of anadromous fish spawning habitat; increased habitat resulting from removal of invasive vegetation and replanting with native plants; and reduction of the risk of catastrophic wildfire. Economic benefits will be achieved by enhancing threatened fisheries. Social well-being is achieved by involving the local community in monitoring and restoration tasks, and by including local students in the project, using Deer Creek as an outdoor classroom. Specific SNC program areas addressed by the project are: 1. Protect, conserve and restore physical and living resources by improving vegetative complex, water quality, and habitat; 2. Reduce the risk of wildfires by eliminating fire-prone invasive non-natives such as Scotch Broom; and 3. Protect and improve water quality by restoring native riparian and meadow vegetation.

6. Consistency with Prop 84 goals:

The project directly supports the goals of Proposition 84 by contributing to the protection and restoration of rivers, streams, their watersheds and associated land, water, and other natural resources. The project targets the riparian and adjacent zones of Deer and Squirrel Creeks in a threatened habitat area for listed species of anadromous fish, with benefits for plants, birds, frogs and all life in the threatened meadow.

b. Workplan and Schedule Narrative

Part of a Larger Project

The proposed revegetation project is part of an overall project aimed at restoring the health of the lower Deer Creek watershed, host to three listed species of spawning anadromous fish. The overall project is composed of several phases. Phase I consisted of development of relationships with key stakeholders in the lower Deer Creek watershed between Lake Wildwood and the confluence with the Yuba River, including private property owners in the riparian zone, and the managers of Lake Wildwood and of its wastewater treatment plant. These efforts have been ongoing since 2000 and will require constant nurturance to ensure that the reach can be treated

as a whole connected system despite the fragmentation caused by private property ownership. Phase II is the ongoing partnership with the managers of Lake Wildwood reservoir to ensure that year round flows are managed in a way that does not negatively impact the spawning reach at the confluence with the Yuba. Phase III is complete, and consists of planning and permitting for a gravel augmentation effort aimed at restoring habitat for anadromous fish. Phase IV is implementation of gravel augmentation and spawning bed enhancement efforts, which began in August 2011 and will continue as funding allows. Phase V, the subject of this proposal, is revegetation of the entire riparian zone throughout the 4 mile stretch of creek between Lake Wildwood and the confluence with the Yuba River. This phase began in 2010 and will involve implementing projects and adaptive management tasks as funding permits. Phase VI is the development of a plan for hydrologic restoration of the only meadow in the lower watershed. Phase VII will be the restoration of the meadow. Numerous proposals have been submitted for all phases of this important and multi-faceted effort to ensure the long term viability of lower Deer Creek as spawning habitat for anadromous fish.

Workplan

The workplan outlined below is a realistic plan that includes specific tasks and subtasks, as well as deliverables and a timeline for each task. Methods to accomplish the goals of the project have been selected by identifying best management practices, and build on our prior work in the vicinity, including proven planting practices and native plant palette. This schedule assumes a September 1, 2012 start date and an August 31, 2015 end date. The project team is ready to proceed once funding is made available. At present, there are no foreseeable factors affecting the project's timeline.

Task 1: Project Management and Administration

Sierra Streams Institute recognizes that project management and administration is a critical aspect of a successful project. This task includes reporting requirements, finalizing the workplan, developing and managing subcontracts, convening project team meetings; developing and disseminating project information; coordinating with the Sierra Nevada Conservancy's grant manager; and trouble-shooting any issues. Subtasks include:

- 1.1 Convene project team meetings
- 1.2 Finalize workplan and budget
- 1.3 Draft and finalize subcontracts/grants
- 1.4 Manage project budget
- 1.5 Submit financial and performance reports
- 1.6 Draft and submit final report

Task 2. Monitoring

This task will involve the implementation by Sierra Streams Institute of pre-, mid- and post-project hydrological, biological, physical and chemical monitoring within, upstream and downstream of the project sites. Audubon will assist with bird surveys.

- 2.1 Develop monitoring plan
- 2.2 Conduct pre-, mid-, and post-project monitoring in accordance with the monitoring plan guidelines
- 2.3 Collaborate with Audubon to conduct annual bird surveys in the project area throughout the project term.
- 2.4 Prepare monitoring report

Task 3. Revegetation Plan Development

This task involves development of vegetation plan for the project site, building on existing planning efforts that include a native plant palette designed for the location. Sierra Streams Institute will collaborate with the Sheatsley Trust in plan development.

- 3.1 Review existing planning efforts
- 3.2 Conduct on the ground survey
- 3.3 Prepare planting plan

Task 4. Removal of Invasive Non-native Vegetation, Revegetation From Native Plant Palette

In this task, Sierra Streams Institute will remove invasive non-native vegetation, particularly Scotch broom and Yellow star thistle, from the 5 acre project site, using hand tools, and working with students in our homeschool science education program including PACE Homeschool Co-op students, as well as CCC and AmeriCorps volunteers. We will also promote other opportunities for community members to become involved, such as a Scotch Broom Challenge event. Removed biomass will be burned or covered before it sets seed, to prevent seed dispersal. We will replant from the native palette, using a native grass mix including Blue wild rye, California Brome, California Fescue and Deer Grass, known for its ability to establish quickly and outcompete Scotch Broom, and for its firesafe qualities. We will plant riparian and upland plants and trees to provide shade, and to restore a naturally diverse community of native plants.

- 4.1 Remove invasive non-native vegetation
- 4.2 Revegetate from native plant palette
- 4.3 Work with homeschool and charter students to implement revegetation, and to

study healthy ecosystems

Task 5. Adaptive Management

Under this task, Sierra Streams Institute will ensure that the project is sustainable by revisiting the site, removing invasive vegetation as it attempts to reestablish in the project area, irrigating new plantings as indicated while they become established, and replanting as necessary.

- 5.1 Survey project site
- 5.2 Remove invasive vegetation as indicated
- 5.3 Irrigate and replant as necessary

Partnership Roles: In the task list above, we outline the role of each partner in implementation of the project.

Detailed Project Deliverables	Timeline
Task 1	
Finalized workplan and budget	September 1, 2012
Finalized subcontracts/grants	October 15, 2012
Financial and performance reports to SNC	January 15, 2013, July 15, 2013, January 15, 2014, July 15, 2014, January 15, 2015, July 15, 2015
Draft Final Report	July 15, 2015
Final Report	August 31, 2015
Task 2	
Monitoring Plan	February 1, 2013
Monitoring and Assessment Report	July 15, 2015
Task 3	
Planting Plan	July 15, 2013
Task 4	
Plant List	May 2014
Photodocumentation	January 2013, July 2013, January 2014, July 2014
Task 5	
Photodocumentation	August 2014, July 2015

c. Restrictions, Technical/Environmental Documents and Agreements Narrative

Restriction/Agreements: There are no restrictions or agreements in place that would adversely impact project completion.

Regulatory Requirements/Permits:

CEQA: The project is categorically exempt from CEQA as a small habitat restoration project. Both Fish and Game and the RWQCB filed Notice of Exemptions for CEQA. The state clearinghouse number is 2010018196

Permits: Section 401 Water Quality Certification with the RWQCB; Lake and Streambed Alteration Agreement with Fish and Game; Department of the Army Section 404 permit with the Army Corps of Engineers; Section 7 ESA consultations with National Marine Fisheries Service and US Fish and Wildlife Service. Consultations were completed with the State Historic Preservation Office for the project properties.

d. Organizational capacity narrative

SSI is a non-profit watershed science organization, founded in 1995 as Friends of Deer Creek to monitor Deer Creek on behalf of Nevada City during the construction of a road bridge over the creek. Since our founding, we have collected 11 years of monthly water quality monitoring data and have implemented numerous projects that address the issues affecting the creek, successfully working within time and budget constraints. We have successfully completed several restoration efforts throughout the watershed, including revegetation work and gravel augmentation. Long term success of our restoration work has been proven by analysis of our macroinvertebrate dataset.

SSI staff includes a biologist, geologist, hydrologist and chemist, all with considerable expertise in project management. Among SSI's board members and volunteers are a microbiologist, hydrogeologist, former agency head at the State Water Quality Control Board, and the former manager of Nevada City's wastewater treatment plant.

e. Cooperation and Community Support:

The project is aligned with the goals of Firewise Communities as implemented locally by **Fire Safe Council of Nevada County**, the Nevada County Community Wildfire Protection Plan, and the **Lake Wildwood Fire Safe Committee**.

The project was developed as part of a comprehensive long range plan to improve habitat for salmon and steelhead in the Yuba watershed, and is aligned with the goals of the **US Fish and Wildlife Anadromous Fish Restoration Program**.

Audubon Society has assisted with bird surveys, and will be involved in the same capacity in this project.

SSI has established a cooperative relationship with the **Lake Wildwood Lake Committee**, ensuring the adoption of beneficial management practices to improve the health of the reach below the reservoir. **Nevada County Sanitation District #1** funds the gravel augmentation element of the project.

Revegetation and restoration of the hydrologic function of the lower watershed were identified as key priorities of the Deer Creek Restoration Plan (2011), developed by **SSI, The Sierra Fund**, and **the Maidu**, with SNC funding.

The landowners and community members in the project vicinity have pledged their willingness to provide access for project implementation purposes and for pre- and post-project monitoring. These landowners include: **The Sheatsley Trust, The Foster-Regan Family, Ralph Mullican, Ian Garfinkle**, and **Brian Bisnett**.

The educational component of the project is supported by **Gold Country Fly Fishers**, who have provided our “Salmon in the Classroom” exhibit, in which students in our homeschool science program raise salmon in a tank from egg to fry, observing their development and then releasing them to the wild. **PACE Homeschool Co-op** students participate in our program, and will be involved through the program in the implementation of this project.

Sierra Nevada AmeriCorps Partnership provides service members to our organization each year, and fully supports the conservation and restoration goals of this project. AmeriCorps members will be responsible for plan development and restoration tasks. **California Conservation Corps** will also assist with revegetation implementation, and has participated in several of our restoration projects to serve as training projects for their members.

Letters of support are attached from Lake Wildwood Lake Association, Lake Wildwood Fire Safe Committee, Audubon Society, Nevada County Sanitation District #1, US Fish and Wildlife Service Anadromous Fish Restoration Program, Gold Country Fly Fishers Club, California Conservation Corps, PACE Homeschool Cooperative, the Sheatsley Trust, Sierra Nevada AmeriCorps Partnership, Firesafe Council of Nevada County.

f. Long Term Management and Sustainability Narrative:

The longterm sustainability of project outcomes is assured because of the protected status of the property and the committed funding in place for concurrent improvement projects in the reach. The Sheatsley property is subject to a conservation easement, with no changes in land use permitted. The project results will be monitored in perpetuity as part of the long term volunteer monitoring program at SSI, in place since 2000, and continuing in perpetuity. The monitoring program has produced a continuous dataset with comprehensive physical, chemical, and

biological parameters, and ensures that long term data collection and data availability will be available to inform management decisions. 3 monthly monitoring and annual assessment sites are located within the immediate project area. The present proposal will fund one piece of the overall lower watershed restoration, with additional properties being restored with separate funding since 2009, with a continuing commitment into the future as funding becomes available. The longterm goal is to prevent the detrimental effects of climate change on an endangered habitat by improving its overall health and biodiversity, thereby increasing its ability to absorb carbon dioxide and its resiliency to future stresses.

g. Performance Measures Narrative:

Performance Measure	Target
Acres of Land Improved or Restored	Acres in very high fire hazard severity zone as designated by CALFIRE: 5
Tons of Carbon Sequestered or Emissions Avoided	Tons of Carbon Sequestered: 1800
Number of People Reached	Sierra Nevada Residents: 100 Youth/Students (under 18 years of age): 150 Community Volunteers: 40 Conservation groups/individuals: 15 Landowner groups/individuals: 30 Resource Professionals: 20 Government officials: 10 Nisenan Tribal Members: 30
Number and Types of Jobs Created	Natural Resources: Number of people employed: 2 length of employment (# of weeks): 10 average # of hours/week: 20 season of employment (winter, spring, summer, fall): all Professional: Number of people employed: 1.5 length of employment (# of weeks): 48 average # of hours/week: 40 season of employment (winter, spring, summer, fall): all
Number and Value of New, Improved or Preserved Economic Activity	Type(s) of products and services provided: Total number of new, improved, or preserved products and services: 1 (Salmon and steelhead fisheries) The benefit to this preserved economic activity is not quantifiable.

Lower Deer Creek Revegetation Project

Resources Leveraged for the Sierra Nevada	# of volunteer hours: 1250 In-kind contributions: \$28,600 Project Funds from other Sources: \$89,000
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Appendix B3

SIERRA NEVADA CONSERVANCY

PROPOSITION 84 - DETAILED BUDGET FORM

Project Name: Lower Deer Creek Revegetation Project

Applicant: Sierra Streams Institute

SECTION ONE DIRECT COSTS	Year One	Year Two	Year Three	Year Four	Year Five	Total
Task 2: Monitoring	\$12,000.00	\$10,000.00	\$8,000.00			\$30,000.00
Task 3: Revegetation Plan	\$5,000.00					\$5,000.00
Task 4: Removal and Revegetation	\$7,500.00	\$35,000.00				\$42,500.00
Task 5: Adaptive Management		\$5,000.00	\$5,000.00			\$10,000.00
DIRECT COSTS SUBTOTAL:	\$24,500.00	\$50,000.00	\$13,000.00	\$0.00	\$0.00	\$87,500.00

SECTION TWO OPERATIONS AND MAINTENANCE	Year One	Year Two	Year Three	Year Four	Year Five	Total
Task 1: Project Management	\$3,000.00	\$3,000.00	\$3,000.00			\$9,000.00
Task 4: Outreach and Education	\$1,000.00	\$1,000.00	\$1,000.00			\$3,000.00
INDIRECT COSTS SUBTOTAL:	\$4,000.00	\$4,000.00	\$4,000.00	\$0.00	\$0.00	\$12,000.00
PROJECT TOTAL:	\$28,500.00	\$54,000.00	\$17,000.00	\$0.00	\$0.00	\$99,500.00

SECTION THREE Administrative Costs (Costs may not to exceed 15% of total Project Cost) :						Total
Overhead (13.5%)						\$13,432.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
ADMINISTRATIVE TOTAL:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,432.00
SNC TOTAL GRANT REQUEST:	\$28,500.00	\$54,000.00	\$17,000.00	\$0.00	\$0.00	\$112,932.00

SECTION FOUR OTHER PROJECT CONTRIBUTIONS	Year One	Year Two	Year Three	Year Four	Year Five	Total
<i>List other funding or in-kind contributors to project (i.e. Sierra Business Council, Department of Water Resources, etc.)</i>						
SSI Volunteer Monitors	\$9,561.00	\$9,561.00	\$9,561.00			\$28,683.00
Bella Vista Foundation	\$58,000.00					\$58,000.00
SNAP	\$8,000.00	\$8,000.00	\$8,000.00			\$24,000.00
NCSD #1	\$2,000.00					\$2,000.00
Wick Kenney Foundation	\$5,000.00					\$5,000.00
						\$0.00
Total Other Contributions:	\$82,561.00	\$17,561.00	\$17,561.00	\$0.00	\$0.00	\$117,683.00

NOTE: The categories listed on this form are examples and may or may not be an expense related to the project. Rows may be added or deleted on the form as needed. Applicants should contact the SNC if questions arise.

* Operating Costs should be allocated to the percentage that is applicable to the grant based on your cost allocation methodology and cannot exceed 15% of your total project costs.



**COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY**
950 MAIDU AVENUE NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9854 www.mynevadacounty.com/cda

Planning Department
Fax (530) 265-9851

Environmental Health
Fax (530) 265-9853

Building Department
Fax (530) 265-9854

Code Compliance
Fax (530) 265-9851

Housing Division
Phone (530) 265-1388
Fax (530) 265-9845

Agricultural Commissioner
255 S. Auburn Street
Grass Valley, CA
Phone (530) 273-2648
Fax (530) 273-1713

April 20, 2007

**NOTICE OF CONDITIONAL APPROVAL
TENTATIVE MAP**

William & Shephne Sheatsley
15930 India Flat Rd.
Nevada City, CA 95959

PM07-002; EIS03-109
AP# 50-010-22 & 50-010-23

Dear Mr. & Mrs. Sheatsley:

At the regular meeting of April 18, 2007 the Nevada County Zoning Administrator referenced Tentative Parcel Map, this is a refilling of previously approved Tentative Parcel Map (PM03-106), which has expired without recordation. Tentative Parcel Map proposing to create 3 clustered parcels and a 114-acre open space area, on property located at 13491 Mooney Flat Rd. Penn Valley, CA, subject to the following mitigation measures and conditions which are required to be completed **prior to map recordation**:

MITIGATION MEASURES:

1. **LAND USE / PLANNING:** To offset potentially adverse impacts to land use and protect open space values, the following mitigation measure is recommended:
 - A. Record map with designated building envelopes. Designated building envelopes for each parcel shall be delineated on the Supplemental Map. All above ground structures shall be limited to the designated building envelopes.
3. **GEOLOGY / SOILS:** To offset potentially adverse impacts to geology and soils, the following mitigation measure is recommended:
 - A. Erosion control measures and Best Management Practices shall be implemented to stabilize areas disturbed for driveway construction or other site improvements. Prior to any onsite disturbance, the Nevada County Building Department shall determine if a grading permit is required.
 - B. Grading plans shall include the time of year for construction activities. No construction shall occur after October 15 or before May 15 unless the Chief Building Inspector, or his/her authorized agent, determines project soil conditions to be adequate to accommodate construction activities.

7. **BIOLOGICAL RESOURCES:** To offset potentially adverse impacts to biological resources, the following mitigation measure is recommended:

A. **Creeks and Potential Wetlands.** Establish Deer Creek, Squirrel Creek and all other drainages, wetlands, and water of the United States on the property as Environmentally Sensitive Areas (ESAs) to avoid impacts to these habitats. The boundary of the ESAs shall be delineated at least 100 feet from the outer limit of the Deer Creek and Squirrel Creek riparian habitat shown on Figure 2 of the Biological Report, and designated on the Supplemental Map as "Environmentally Sensitive Non-Disturbance areas". Delineate a 50-foot non-disturbance buffer on potential wetlands in Lots Number 1, 2 and 3, and designate on the Supplemental Map as "Environmentally Sensitive Non-Disturbance area".

- B. **Construction in Vicinity of Potential Wetlands.** Include the following note on the Supplemental Map and on all building and grading permits:

"To protect water quality and aquatic life in potential wetlands, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to:

- a) The contractor shall exercise every reasonable precaution to protect the wetland at the project site from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the drainage and shall be collected and removed from the site.
- b) Erosion control measures shall be applied to all disturbed slopes. No non-native grasses or herbaceous plant material shall be used for erosion control.
- c) Silt fencing (or filter fabric) shall be used between the potential wetland and work areas to catch any short-term erosion or sedimentation that may inadvertently occur. Measures may include but not be limited to the use of sediment basins, straw bales, and silt fences."

- C. **Oak Mitigation Plan.** In order to protect oaks that are not removed, and to replace oaks that are removed, the following mitigation will apply.

1. The following notes shall be placed on the Supplemental Map.

- "a) Plans and specifications shall clearly state protection procedures for oaks on the project site. The specifications shall also require contractors to stay within designated work areas and shall include a provision for penalties if oak trees are damaged.
- b) No vehicles, construction equipment, mobile offices, or materials shall be parked or located within the driplines of oaks that are to be preserved.
- c) Soil surface removal greater than one foot shall not occur within the driplines of oak trees to be retained. No cuts shall occur within five feet of their trunks.
- d) Earthen fill greater than one foot deep shall not be placed within the driplines of oak trees to be retained, and no fill shall be placed within five feet of their trunks.
- e) Paving shall not be placed in the vicinity of oaks to be retained.
- f) Underground utility line trenching shall not be placed within the driplines of oaks to be retained. If it is absolutely necessary to install underground utilities within the driplines of oak trees, the trench shall either be bored or drilled, but not within five feet of the trunk."

2. Delineate and label "Interior Live Oak Woodland, Greater than 30% canopy cover, Non-Disturbance Area except for individual trees or groups of trees designated for removal and revegetation within the Proposed Oak Revegetation Area"
 3. Delineate and label "Oak revegetation area" on the Supplemental Map. Attach Appendix F and Appendix G of the Biological Inventory to all grading and building permits. A biologist shall inspect the property for consistency with this plan prior to issuance of a "Certificate of Occupancy" on any building permit and prior to any final on grading permits.
- D. **Nesting birds.** To avoid impact to nesting birds if tree removal is proposed, the following mitigation will apply to construction activities associated with the project. The following notes shall be placed on the Supplemental Map.
- If tree removal will occur during the nesting season (February through July), pre-construction surveys should be conducted in forested areas for nesting birds. Surveys shall be conducted by a qualified wildlife biologist.
 - Surveys shall be conducted no more than 14 days prior to the initiation of tree-removal activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through July).
 - If the surveyor deems that an active bird nest is close enough to the construction area to be disturbed, he or she should (in consultation with CDFG) determine the extent of the construction-free buffer zone to be established around the nest.
 - Trees shall be removed outside the nesting season (February through July), or after a qualified wildlife biologist verifies that the nest is empty and the adult and young birds no longer use the nest tree
- E. **Open Space / Working Landscape.** Delineate the area identified for designation as "Commonly-owned Open Space, Non-Disturbance Area." This area may be used to support agricultural production. Establish a Home Owners or similar association to provide for resource management and protection within this area.
15. **CULTURAL RESOURCES:** To offset potentially adverse impacts to cultural resources, the following mitigation measure is recommended:
- A. The following Note shall be placed on the Supplemental Map and incorporated into Building and Grading Plans:
- "All construction plans shall advise contractors and construction personnel involved in any form of ground disturbance, i.e. utility placement or maintenance, grading, etc., of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Planning Department contacted. A professional archaeologist shall be consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If human bone is encountered, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American Organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment."

Noise

All members are entitled to the "Quiet Enjoyment" of their premises.

First right of refusal

Any owner wishing to sell their ownership must first offer it for sale to the other existing owners at the prevailing market rate.

Open Space

The open space area shall be treated as a wildlife preserve.

Meadow Area

There is an meadow area by the creek delineated on the parcel map that is partially on private property. No structures are permitted within this boundary except by unanimous vote of all the members.

Article 11. Amendments to the By-Laws and C C & R's

Amending the By-Laws and C C & R's requires a unanimous vote of the membership.

Signed ,

For Parcel 1:

For Parcel 2:

For Parcel 3:

Stephne Sheatsley

Sara Goldfarb

Jacqueline Peake Lessing

William Sheatsley

Paul Harley

Alan M Lessing



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

February 21, 2011

Regulatory Division (SPK-2009-01464)

Ms. Joanne Hild
Friends of Deer Creek
431 Uren St. Suite C
Nevada City, California 95959

Dear Ms. Hild:

We are responding to your November 17, 2010 request for a Department of the Army permit for the Deer Creek Salmon and Steelhead Habitat Restoration project. This project involves activities, including discharges of dredged or fill material, in waters of the United States to conduct gravel augmentation on Deer Creek. The project is located on Deer Creek in Section 20, Township 16 North, Range 7 East, MDM&B, Latitude 39.23492°, Longitude -121.21987°, Nevada County, California.

Based on the information you provided, the proposed activity, resulting in the placement of approximately 10,000 cubic-yards of gravel and cobble into Waters of the U.S., meets the terms of Nationwide Permit Number 27, Aquatic Habitat Restoration, Establishment, and Enhancement Activities. However, until the Section 401 Water Quality Certification for the activity has been issued or waived, our authorization is denied without prejudice. Once you have provided us evidence of water quality certification, the activity is authorized and the work may proceed subject to the conditions of certification and the Nationwide Permit. Your work must comply with the general terms and conditions listed on the enclosed Nationwide Permit information sheets and the following special conditions:

Special Conditions

1. You are responsible for all work authorized herein and ensuring that all contractors and workers are made aware and adhere to the terms and conditions of this permit authorization. You shall ensure that a copy of the permit authorization and associated drawings are available for quick reference at the project site until all construction activities are completed.
2. You and your authorized contractor shall allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that work is being or has been accomplished in accordance with the terms and conditions of this verification.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of

what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register.

4. To ensure your project complies with the Federal Endangered Species Act, you must implement all of the mitigating measures identified in the enclosed U.S. Fish and Wildlife Service letter of concurrence (81420-2010-1-0903-2, dated January 27, 2011) and National Marine Fisheries Service letter of concurrence (2010/02723, dated August 17, 2010), including those ascribed to the Corps therein. If you are unable to implement any of these measures, you must immediately notify this office, the U.S. Fish and Wildlife Service Office, and the National Marine Fisheries Service so we may consult as appropriate, prior to initiating the work, in accordance with Federal law.

5. You shall notify this office of the start and completion dates of the authorized work within 30 calendar days prior to initiation of construction activities within waters of the U.S. and 30 calendar days following completion of construction activities.

6. Within 5 days prior to initiation of construction activities within waters of the U.S., you shall submit to the Corps pre-construction site photographs of the project site, which have been taken no more than 5 days prior to initiation of construction activities. Within 5 days following construction activities, you shall submit post-construction site photographs of the project site, showing the work conducted, to this office. The camera positions and view angles of post-construction photographs shall be identified on a map, aerial photo, or project drawing. Construction locations shall include all major project features and waters of the U.S., including mitigation areas.

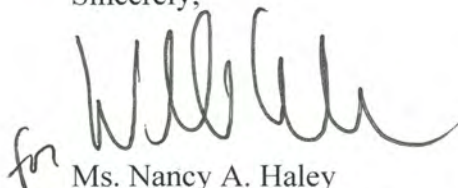
You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work.

This verification is valid for two years from the date of this letter or until the Nationwide Permit is modified, reissued, or revoked, whichever comes first. All of the existing NWP's are scheduled to be modified, reissued, or revoked prior to March 18, 2012. It is incumbent upon you to remain informed of changes to the NWP's. We will issue a public notice when the NWP's are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Failure to comply with the General Conditions of this Nationwide Permit, or the project-specific Special Conditions of this authorization, may result in the suspension or revocation of your authorization.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2009-01464 in any correspondence concerning this project. If you have any questions, please contact Ms. Jinnah Benn at our Sacramento office at 1325 J Street, Room 1480, Sacramento, California 95814-2922, or by email at Jinnah.L.Benn@usace.army.mil, or by telephone 916-557-7247. For more information regarding our program, please visit our website at www.spk.usace.army.mil/regulatory.html.

Sincerely,

A handwritten signature in dark ink, appearing to read "Nancy A. Haley". To the left of the signature is a small, stylized "for" written vertically.

Ms. Nancy A. Haley
Chief, California North Branch

Enclosures

Copy furnished without enclosures:

Mr. Ryan Olah, Fish and Wildlife Service, 2800 Cottage Way, Room W-2605, Sacramento, California 95825-1846

Ms. Gretchen Umlauf, National Marine Fisheries Service, 650 Capitol Mall, Suite 8-300, Sacramento, California 95814-4706

Mr. Daniel Worth, Water Quality Certification Program, Central Valley Water Board, 11020 Sun Center Drive #200, Rancho Cordova, California 95670

Mr. Kent Smith, California Department of Fish and Game, Region 2, 1701 Nimbus Drive, Rancho Cordova, California 95670-4599

COMPLIANCE CERTIFICATION

Permit File Number: SPK-2009-01464

Nationwide Permit Number:

Permittee: Joanne Hild
Friends of Deer Creek
431 Uren St. Suite C
Nevada City, California 95959

County: Nevada

Date of Verification: February 15, 2011

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1480 (enter)
Sacramento, California 95814-2922

DLLS-CESPK-RD-Compliance@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the Corps of Engineers.

* * * * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

Signature of Permittee

Date



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



In Reply Refer To:
81420-2010-I-0903-2

JAN 27 2011

Ms. Nancy A. Haley
Chief, California North Branch
Regulatory Division
U.S. Army Corps of Engineers
1325 J Street, Room 1480
Sacramento, California 95814-2922

Subject: Informal Consultation on the Proposed Deer Creek Salmon and Steelhead Habitat Restoration Project (Corps # 200901464), Nevada County, California

Dear Ms. Haley:

This is in response to your letter received August 9, 2010, requesting initiation of informal consultation with the U.S. Fish and Wildlife Service (Service) on the Proposed Deer Creek Salmon and Steelhead Habitat Restoration Project (Corps # 200901464), Nevada County, California. The Deer Creek Salmon and Steelhead Restoration Project is located on Deer Creek, at multiple locations west of Lake Wildwood and south of Mooney Flat Road, near Penn Valley in Nevada County, California. The project proposes to annually place approximately 10,000 cubic-yards of gravel and cobble (between 13-150 millimeters in diameter) recovered from the dam at Lake Wildwood and gravel that has been purchased to augment recovered gravel into the lower reaches of Deer Creek, which is critical spawning habitat for Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss irideus*). At issue are the potential effects to the threatened California red-legged frog (*Rana draytonii*). This letter is issued pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

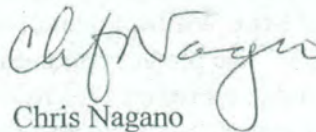
Our comments are based on (1) the August 9, 2010, letter to initiate informal consultation and the from the Army Corps of Engineers (Corps); (2) the September 9, 2010, amendment to the informal consultation initiation letter; (3) the July 2010, *Gravel Augmentation Restoration on Lower Deer Creek Assessment for California Red-legged Frogs and Valley Elderberry Longhorn Beetles*; (4) the November 2010, *Gravel Augmentation Restoration on Lower Deer Creek Assessment for California Red-legged Frogs and Valley Elderberry Longhorn Beetles*; and (5) other information available to the Service.

TAKE PRIDE
IN AMERICA 

The proposed project is within the range of the California red-legged frog and the nearest recorded occurrences are the Little Oregon Creek population located approximately 14 miles north of the action area and the Sailor Flat population located approximately 16 miles east of the action area. The action area does not contain suitable breeding habitat, yet potential breeding habitat exists within one mile of the action area. The action area does provide potential non-breeding habitat. The Service concurs with your determination that the proposed Deer Creek Salmon and Steelhead Habitat Restoration Project is not likely to adversely affect the California red-legged frog because of the altered water quality in Deer Creek from the Lake Wildwood Waste Water Treatment plant, presence of bullfrogs in Deer Creek, distance to known populations, and the conservation measures outlined on pages 9-11 of the November 2010, *Gravel Augmentation Restoration on Lower Deer Creek Assessment for California Red-legged Frogs and Valley Elderberry Longhorn Beetles*. Unless new information reveals effects of the proposed action that may affect federally listed species in a manner or to an extent not considered, or a new species or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act, is necessary. Please note this letter does not authorize take of the California red-legged frog or other listed species.

Please address any questions or concerns regarding this response on the proposed Deer Creek Salmon and Steelhead Habitat Restoration Project to Casey Collins, or Ryan Olah, acting Forest Foothills Branch Chief, at (916) 414-6600.

Sincerely,



Chris Nagano
Division Chief, Endangered Species Program

cc:

Ms. Joanne Hild, Friends of Deer Creek, Nevada City, California



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

AUG 17 2010

In response refer to:
2010/02723

Nancy Haley
Chief, California Branch
U.S. Army Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

Dear Mr. Guthrie:

This is in response to your letter of June 18, 2010, requesting the initiation of consultation under section 7 of the Endangered Species Act (ESA) and concurrence from NOAA's National Marine Fisheries Service (NMFS) that the U.S. Army Corps of Engineers (Corps) Deer Creek Restoration Project (Project), 12 miles west of Grass Valley, California, may affect but is not likely to adversely affect Federally listed threatened Central Valley spring-run Chinook salmon evolutionarily significant unit (ESU) (*Oncorhynchus tshawytscha*), Central Valley steelhead distinct population segment (DPS) (*O. mykiss*) or the respective designated critical habitat for these species. The Corps has also determined that this project may adversely affect Essential Fish Habitat (EFH) for Pacific salmon, pursuant to section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The action area for the proposed project has been designated as EFH of Pacific salmon pursuant to the MSA. This letter also serves as consultation under the authority of, and in accordance with, the provisions of the Fish and Wildlife Coordination Act of 1934 (FWCA), as amended.

Lake Wildwood dam is located four miles above the confluence of Deer Creek with the Yuba River. Gravel that would normally be deposited in this area of Deer Creek is prevented from moving into the area by Wildwood Dam. The Corps, along with the applicant, Friends of Deer Creek, determined that spawning gravel augmentation on Deer Creek can be accomplished by harvesting gravel from Lake Wildwood Reservoir and purchasing additional gravel, as needed, from a local gravel mining company.

Project description

1. Gravel augmentation

The Project is located in the Yuba River watershed on Deer Creek. The gravel source for Deer Creek is found 4 miles above the confluence of Deer Creek with the Yuba River in Wildwood Lake Reservoir, (latitude/longitude 39.23492,-121.21987), with additional gravel purchased, as



necessary, from a local mining company. The primary purpose of the project is gravel augmentation of 8 acres of un-vegetated streambed (22,800 linear feet of Deer Creek with an average width of 15 feet). The injection of gravels will facilitate increased spawning capacity for this section of Deer Creek.

The gravel that will be used for the injection below the dam will be recovered from Lake Wildwood during the dewatering and dredging period the managers go through periodically to maintain appropriate water levels behind the dam. Gravels of between 13–15 millimeters will be recovered from the lake and placed directly below the Wildwood dam spillway into the Deer Creek bars in the dry channel and floodplain on the river left side of the creek. Replacement of gravel below the dam will restore a critical ingredient of salmonid spawning habitat as well as a vital but poorly understood element in the overall function of the stream, with beneficial impacts to temperature, flow, oxygenation for fish and other wildlife populations.

Work will be done at Wildwood Dam with an excavator, loader, dump trucks and grizzly screen. Once the gravel is placed, the winter storms will eventually carry this gravel downstream where it is needed for spawning.

2. Re-vegetation

Many areas along Deer Creek riparian area from the Wildwood dam to the confluence of this creek with the Yuba River are infested with invasive plant species. The second purpose of this project is to remove the invasive plants from the 4-mile stretch between Wildwood and the Yuba River and replace it with native plantings. Re-vegetation would restore the capacity to uptake nutrients, thereby reducing the extent of algae blooms that have severely impacted the lower Deer Creek. Algae blooms cause large diurnal swings in pH and dissolved oxygen, creating conditions that are lethal to native aquatic organisms. For this reason, Deer Creek is considered an impaired watershed and is on the California State Water Resources Control Board's list of impaired water bodies under Clean Water Act section 303(d). Re-vegetation will increase riparian cover through the planting of native trees and shrubs such as willow that will provide much needed shade for this section of Deer Creek. Macro-invertebrate diversity will increase as well, as stream temperatures are cooled by increased shading from the re-vegetation.

Endangered Species Act Section 7 Consultation

In order for NMFS to consider a project as being not likely to adversely affect the listed species, any effects upon the listed species must be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) Be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) Expect discountable effects to occur.

The proposed project site is within the geographic range of the Central Valley spring-run Chinook salmon ESU and the Central Valley steelhead DPS and encompasses designated critical habitats for each of these species.

1. Effects related to gravel augmentation

The Project work will result in insignificant impacts to listed anadromous fish species related to the gravel augmentation portion of the project due to the fact that gravel augmentation will occur in Deer Creek on a dry bar of the river off of the wetted channel. No in-water work will occur in this phase. Over time, as the newly augmented gravel area in Deer Creek is transported downstream by winter storm and precipitation events, the effects of the gravel augmentation will be beneficial as these gravels are the right size for spawning (Nelson *et. al.* 1987). This process of gravel transport downstream is akin to the geomorphologic processes that naturally occur in this type of system without the presence of a dam. Because the dam is in place, the gravel has been trapped and the spawning areas, because they are not being replenished with gravels, are almost void of the necessary gravels that salmonids need for spawning success. Spawning gravels of appropriate size and shape create the necessary interstitial space needed for oxygenation and nutrient transport of eggs as they are developing.

Gravel augmentation on Deer Creek will be a much needed benefit to this tributary of the Yuba River. The Yuba River upper reaches, where spawning historically occurred for these listed fish, is now blocked by a major rim dam. So, this project will offset some of those negative impacts to production, namely spawning.

2. Effects related to re-vegetation

During the re-vegetation phase of the Project, the Corps will incorporate the following best management practices (BMPs) in order to avoid any impacts to Deer Creek while planting is occurring:

Sediment management and preventative measures will minimize the amount of project-related sediment introduced to the waterway through the use of tools such as silt fences. Although turbidity is not expected to have effects on listed fish species, the Corps will monitor the site during transport of plant materials and plantings at the site to be sure that turbidity or impacts from machinery does not affect listed fish. Water quality control guidelines set by the California State Water Resources Quality Control Board set limits on turbidity increases during in-water work where activities such as digging or dredging occur. According to the standards, the increases are not to exceed:

- a. In locations where natural turbidity is between 1 and 5 Nephelometric Turbidity Units (NTU) increases will not exceed 1 NTU.
- b. In locations natural turbidity is between 5 and 50 NTUs, increases will not exceed 20 percent.

Natural turbidity in the Deer Creek normally falls within the range of 5–20 NTU's. In the event that a project-related sediment plume (such as the case with planting of larger trees along the river bank) does occur that is prolonged in duration (more than a few hours) and greater than 20 percent above baseline NTU levels, work will be suspended, to allow for the plume to dissipate downstream.

Additional conservation measures include standard construction BMPs reducing aquatic contamination from construction machinery and debris, as well as sediment. Those practices that are specific to this project are:

- a. Staging, operating, storing equipment and fuels, shall be located outside of the river and bank areas and at least 100 feet from the work site.
- b. Litter and construction debris will be removed promptly when the work is finished.

NMFS concurs that the Deer Creek Salmon and Steelhead Restoration Project, including the gravel augmentation and re-vegetation phases, is not likely to adversely affect the Central Valley spring-run Chinook salmon ESU, the Central Valley steelhead DPS or any of their respective designated critical habitat because no in-water work will occur during gravel augmentation and BMPs will be followed to limit increases in turbidity and reduce aquatic contamination from construction machinery and debris. This concurrence is based on the applicant implementing all conservation and protective measures intended to avoid or minimize adverse effects to fish and fish habitat as identified in the project description. The Project will serve to benefit the production capability of these fish by augmenting spawning areas, introducing elements that will increase shade, oxygenation, macro-invertebrate diversity, and re-uptake capacity of the creek because of increased water recharge due to increased persistent vegetation along the 4 miles of bank slated to be restored.

This concludes section 7 informal consultation for the proposed action. Re-initiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered; or (3) a new species is listed or critical habitat designated that may be affected by the action.

Essential Fish Habitat Consultation

With regards to EFH consultation, the proposed project area has been identified as EFH for Pacific salmon in Amendment 14 of the Pacific Salmon Fishery Management Plan pursuant to the MSA. Federal action agencies are mandated by the MSA (section 305(b)(2)) to consult with NMFS on all actions that may adversely affect EFH, and NMFS must provide EFH conservation recommendations to those agencies (section 305(b)(4)(A)). Based on our review of the project description and conservation and protective measures provided, we find the project is overall a beneficial project for fish and includes conservation measures that will avoid or minimize impacts to EFH for Pacific salmon as described in Amendment 14 of the Pacific Salmon Fishery Management Plan pursuant to the MSA. These measures include an in-water work schedule that avoids Pacific salmon presence in the watershed during removal of the debris and the incorporation of construction BMPs to reduce or eliminate the potential for sediment and contaminants entering the waters of the Yuba River. These measures should adequately avoid or minimize any adverse effects to the EFH of Pacific salmon. Therefore, no additional EFH conservation recommendations are being provided at this time, and no written response is

required at this time under section 305(b)(4)(B) of the MSA and Federal regulations (50 CFR § 600.920). Should additional information reveal that the project may affect EFH and/or impact salmonids in a way not previously considered, or should the action be modified in a way that may cause additional effects to EFH, re-initiation of consultation may be required.

Fish and Wildlife Coordination Act

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development (16 U.S.C. 661). The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage (16 U.S.C. 662(a)). Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. The FWCA provides the opportunity to offer recommendations for the conservation of species and habitats beyond those currently managed under the ESA and MSA. Because the proposed project is designed to avoid environmental impacts to aquatic habitat within the action area, NMFS has no additional FWCA comments to provide at this time.

This concludes EFH and FWCA consultation for the Deer Creek Habitat Restoration Project. Please contact Gretchen Umlauf at (916) 930-5646, or via e-mail at gretchen.umlauf@noaa.gov if you have any questions concerning this project or require additional information.

Sincerely,



for

Rodney R. McInnis
Regional Administrator

Cc: Copy to File – ARN 151422SWR2010SA00171
NMFS-PRD, Long Beach, CA
Bryant Chesney, Long Beach, CA

References:

Nelson, R. W., J. R. Dwyer, and W. E. Greenberg. 1987. Regulated flushing in a gravel-bed river for channel habitat maintenance: a Trinity River [California, USA] fisheries case study. *Environmental Management* 11:479–494.



**California Regional Water Quality Control Board
Central Valley Region**

Katherine Hart, Chair



Linda S. Adams
Acting Secretary for
Environmental Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

Edmund G. Brown Jr.
Governor

29 March 2011

Joanne Hild
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

**CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY
CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE
DEER CREEK SALMON AND STEELHEAD HABITAT RESTORATION PROJECT
(WDID#5A29CR00055), NEVADA COUNTY**

This Order responds to your 7 April 2009 application submittal for the Water Quality Certification of a salmon and steelhead habitat restoration project directly impacting approximately 1.5 acres of waters of the United States from the placement of gravel within the stream channel of Deer Creek. Gravel placement may indirectly enhance 14.6 acres of salmon and steelhead spawning habitat through the natural-hydraulic re-distribution of the new gravel.

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This Order serves as a Water Quality Certification (Certification) action that is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
4. This Certification is valid for the duration of the described project. This Certification is no longer valid if the project (as currently described) is modified, or coverage under Section 404 of the Clean Water Act has expired.

5. All reports, notices, or other documents required by this Certification or requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) shall be signed by a person described below or by a duly authorized representative of that person.
 - (a) For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (b) For a partnership or sole proprietorship: by a general partner or the proprietor.
 - (c) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official.

6. Any person signing a document under Standard Condition number 5 shall make the following certification, whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

ADDITIONAL TECHNICALLY CONDITIONED CERTIFICATION CONDITIONS:

In addition to the above standard conditions, Friends of Deer Creek shall satisfy the following:

1. Friends of Deer Creek shall notify the Central Valley Water Board in writing 7 days in advance of the start of any in-water activities. The notification should include the name of the project and the WDID number, and should be sent to the Central Valley Water Board contact person shown on page 5 of this Certification.
2. Except for activities permitted by the U.S. Army Corps under §404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
3. All areas disturbed by project activities shall be protected from washout or erosion.
4. Friends of Deer Creek shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed project shall be adequately informed and trained regarding the conditions of this Certification.
5. An effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working during all phases of construction.

6. All temporarily affected areas will be restored to pre-construction contours and conditions upon completion of construction activities.
7. Friends of Deer Creek shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that project activities result in any materials reaching surface waters or; 3) When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the project and 300 feet downstream of the active work area. Sampling results shall be submitted to this office within two weeks of initiation of sampling and every two weeks thereafter. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in water work
Settleable Material	ml/l	Grab	Same as above
Visible construction related pollutants	Observations	Visual Inspections	Continuous throughout the construction period

8. Activities shall not cause turbidity increases in surface water to exceed:
 - (a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
 - (b) where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
 - (c) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - (d) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
 - (e) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be assessed by prior permission of the Central Valley Water Board.
9. Activities shall not cause settleable matter to exceed 0.1 ml/l in surface waters as measured in surface waters 300 feet downstream from the project.
10. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the work area or downstream. Friends of Deer Creek shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
11. Friends of Deer Creek shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.

12. Friends of Deer Creek shall comply with all California Department of Fish and Game requirements for the project.
13. The use of netting material (e.g., monofilament-based erosion blankets) that could trap aquatic dependent wildlife is prohibited within the Project Area.
14. Friends of Deer Creek must obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board for any project disturbing an area of 1 acre or greater.
15. The Conditions in this Certification are based on the information in the attached "Project Information." If the information in the attached Project Information Sheet is modified or the project changes, this Certification is no longer valid until amended by the Central Valley Water Board.
16. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State and Federal law. The applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with this Certification.
 - (a) If Friends of Deer Creek or a duly authorized representative of the project fails or refuses to furnish technical or monitoring reports, as required under this Certification, or falsifies any information provided in the monitoring reports, the applicant is subject to civil, for each day of violation, or criminal liability.
 - (b) In response to a suspected violation of any condition of this Certification, the Central Valley Water Board may require Friends of Deer Creek to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
 - (c) Friends of Deer Creek shall allow the staff(s) of the Central Valley Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the project premises for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification and determining the ecological success of the project.
17. Friends of Deer Creek shall provide a Notice of Completion (NOC) no later than 30 days after the project completion. The NOC shall demonstrate that the project has been carried out in accordance with the project's description (and any amendments approved). The NOC shall include a map of the project location(s), including final boundaries of any in situ restoration area(s), if appropriate, and representative pre and post construction photographs. Each photograph shall include a descriptive title, date taken, photographic site, and photographic orientation.
18. Gravel that is placed into waters of the State must be cleaned with water prior to placement into waters of the State. The wash-water must be contained so that it does not come into contact with waters of the State. If the soil and sediments left over from the washed rock

exceed State and Federal toxicity standards, then Friends of Deer Creek must contact the Central Valley Water Board for an approved method of disposal.

19. This project must not create areas that could trap fish and isolate them from the main stream channel.
20. To minimize impacts to water chemistry within Deer Creek, all gravel used for this restoration project must be mined or extracted from within the Yuba River watershed. If gravel from outside of the Yuba River watershed is proposed for use, then Friends of Deer Creek must contact the Central Valley Water Board and request additional written authorization.
21. All riparian vegetation (native and/or non-native) removed during this project must be replaced by an equivalent amount of native riparian vegetation. For example, every square foot of riparian vegetation that is removed must be replaced by an equivalent or greater amount of native riparian vegetation. Compliance with this condition must be documented five years (plus or minus three months) from the date on this Certification. To document compliance, Friends of Deer Creek must submit a report that documents and maps the areas of riparian vegetation removal and documents the success of the native riparian vegetation that was planted and/or re-established in place of the removed vegetation. Failure to re-establish all disturbed riparian areas is a violation of this Certification. After riparian areas are re-established with vegetation, no maintenance will occur within the riparian corridor unless additional written authorization has been granted by the Central Valley Water Board.
22. Final copies of all water quality monitoring reports related to this project must be submitted to the Central Valley Water Board.

CENTRAL VALLEY WATER BOARD CONTACT:

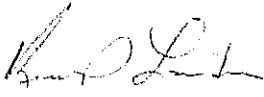
Daniel Worth, Environmental Scientist
11020 Sun Center Drive #200
Rancho Cordova, California 95670-6114
dworth@waterboards.ca.gov
(916) 464-4709

WATER QUALITY CERTIFICATION:

I hereby issue an Order certifying that any discharge from the Friends of Deer Creek, Deer Creek Salmon and Steelhead Habitat Restoration Project (WDID#5A29CR00055) will comply with the applicable provisions of §301 ("Effluent Limitations"), §302 ("Water Quality Related Effluent Limitations"), §303 ("Water Quality Standards and Implementation Plans"), §306 ("National Standards of Performance"), and §307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Resources Control Board Water Quality Order No. 2003-0017 DWQ "Statewide General Waste Discharge Requirements For Dredged Or Fill Discharges That Have Received State Water Quality Certification (General WDRs)".

Continue on next page

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with Friends of Deer Creek's project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009.


for

Pamela C. Creedon
Executive Officer
Central Valley Regional Water Quality Control Board

Enclosure: Project Information

cc: See enclosure, page 10

PROJECT INFORMATION

Application Date: 7 April 2009

Applicant: Joanne Hild
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

Project Name: Deer Creek Salmon and Steelhead Habitat Restoration Project

Application Number: WDID#5A29CR00055

Type of Project: Salmon and Steelhead Habitat Restoration

Approximate Timeframe of Project Implementation: Annually between 15 April and 15 October

Project Location: Section 19, 20, 22, 23 and 24, Township 16 North, Range 7 and 6 East, MDB&M. Latitude: 39.2358° and Longitude: 121°.2190".

County: Nevada County

Receiving Water(s) (hydrologic unit): Deer Creek, Sacramento Hydrologic Basin, Yuba River Hydrologic Unit #17.12 and #17.20, Browns Valley HSA

Water Body Type: Streambed

Designated Beneficial Uses: The *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009 (Basin Plan) has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include, but are not limited to: Municipal and Domestic Water Supply (MUN); Agricultural Supply (AGR); Industrial Supply (IND), Hydropower Generation (POW); Groundwater Recharge, Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); and Wildlife Habitat (WILD). A comprehensive and specific list of the Beneficial Uses applicable for the project area can be found at http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

303(d) List of Water Quality Limited Segments: The project is located within a water quality limited segment for pH in Deer Creek (Yuba County). This restoration project is not a source of impact for the identified pollutant in the 303(d) list, because local-native rock will be used for the project. The most recent list of approved water quality limited segments can be found at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/r5_06_303d_reqtmlds.pdf

Project Description (purpose/goal): The Central Valley Water Board and Nevada County Sanitation District #1 (NCSD) negotiated the implementation of a gravel augmentation project on lower Deer Creek, as a Supplemental Environmental Project (SEP), as part of penalties assessed against the NCSD for illegal waste discharges into Deer Creek (Administrative Civil

Liability Order No. R5-2009-0553). Friends of Deer Creek is under contract with the NCSD to complete the gravel augmentation project.

Friends of Deer Creek proposes to annually place as much as 10,000 cubic yards of gravel and small cobble into Deer Creek downstream of the Lake Wildwood dam (Dam). The gravel used for this project will be collected from above the Dam, or will be purchased from a local supplier who has extracted it from within the Yuba River watershed. The Project intends to enhance spawning habitat in approximately 1.5 acres of Deer Creek located between the Dam and the confluence with the Yuba River. The gravel placement may also indirectly enhance 14.6 acres of salmon and steelhead spawning habitat through the natural-hydraulic re-distribution of the new gravel. All gravel and cobbles will be tested for mercury and Title 22 metals, and will be cleaned and washed prior to placement. The wash-water from gravel cleaning will be contained so that it does not come in contact with waters of the State. The augmentation of gravel below the Dam will restore a critical ingredient of salmonid spawning habitat as well as a vital but poorly understood element in the overall function of the stream, with potential beneficial impacts to temperature, flow, and dissolved oxygen for fish and other wildlife populations. The gravel placement will occur annually between 15 April and 15 October during periods of dry weather and low stream flow. It is estimated that the project will take 56 hours annually.

Preliminary Water Quality Concerns: Construction activities may impact surface waters with increased turbidity and settleable matter.

Proposed Mitigation to Address Concerns: Friends of Deer Creek will implement Best Management Practices (BMPs) to control sedimentation and erosion. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. Friends of Deer Creek will conduct turbidity and settleable matter testing during in-water work, stopping work if the Basin Plan criteria are exceeded or are observed.

Fill/Excavation Area: Approximately 10,000 cubic yards of clean native rock will be placed annually into approximately 1.5 acres of waters of the United States. Gravel placement may indirectly enhance 14.6 acres of salmon and steelhead spawning habitat through the natural-hydraulic re-distribution of the new gravel.

Dredge Volume: None

U.S. Army Corps File Number: SPK-2009-01464

Department of Fish and Game Streambed Alteration Agreement: The California Department of Fish and Game signed the Streambed Alteration Agreement on 20 January 2010.

Possible Listed Species: Chinook salmon, Central Valley steelhead, western pond turtle, California red-legged frog

Status of CEQA Compliance: The Central Valley Water Board determined that this gravel augmentation project meets Categorical Exemption criteria under Title 14, Section 15333 of the California Code of Regulations, which exempts small habitat restoration projects. The Central Valley Water Board filed a Notice of Exemption with the Office of Planning and Research on 23 March 2011.

Compensatory Mitigation: The Central Valley Water Board is not requesting compensatory mitigation for this restoration project.

Application Fee Provided: Total fees of \$640.00 have been submitted to the Central Valley Water Board as required by 23 CCR §3833b(3)(A) and by 23 CCR §2200(e).

DISTRIBUTION LIST

United States Army Corp of Engineers
Sacramento District Office
Regulatory Section, Room 1480
1325 J Street
Sacramento, CA 95814-2922

United States Fish & Wildlife Service
Sacramento Fish & Wildlife Office
2800 Cottage Way
Sacramento, CA 95825

Jeff Drongesen
Department of Fish and Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

Bill Jennings
CA Sportfishing Protection Alliance
3536 Rainier Avenue
Stockton, CA 95204

(Electronic copy only) Bill Orme
State Water Resources Control Board
401 Certification and Wetlands Unit Chief

(Electronic copy only) Dave Smith
Wetlands Section Chief (W-3)
United States Environmental Protection Agency



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
<http://www.dfg.ca.gov>

ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMON, Acting Director



"NOTICE OF EXEMPTION"

The Department has determined that your project as described in the subject Lake or Streambed Alteration Agreement is exempt from the California Environmental Quality Act (CEQA) and will file a notice of Exemption for your project. The Notice will be filed with the Office of Planning and Research, as required by CEQA. The Department's compliance with CEQA may be legally challenged for 35 days following the filing of the Notice of Exemption.

This completes the Department's agreement process. You may proceed with your project according to the terms and provisions of your Streambed Alteration Agreement if you have obtained all other permits required from local, other State, and Federal agencies.

AGREEMENT REGARDING PROPOSED STREAM ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and Joanne Hild representing Friends of Deer Creek of Nevada City, State of California, hereafter called the Operator, is as follows:

WHEREAS, pursuant to California Fish and Game Code, Section 1602, the Operator, on May 07, 2009, notified the Department that he intends to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of, the following water: Lower Deer Creek and Squirrel Creek, in the County of Nevada, State of California, Section 19 and 20, Township 16 North, Range 7 East, USGS Map Rough and Ready, MDB&M; and Section 22, 23, and 24, Township 16 North, Range 6 East, USGS Map Smartville, MDB&M.

WHEREAS, the Department, represented by Robert Hosea, has determined that such operations may substantially adversely affect existing fish and wildlife resources including: anadromous salmonid species, warm water fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife during the Operator's work. The Operator hereby agrees to accept the following recommendations as part of his work:

This agreement pertains to annual placement of up to 10,000 cubic yards of gravel and small cobble into Lower Deer Creek below the Lake Wildwood retention dam to enhance spawning habitat in approximately 4.25 miles of Lower Deer Creek from the retention dam to its confluence with the Yuba River. This gravel and cobble will be clean washed material and will, in part, be native materials removed from accumulated deposits behind the Lake Wildwood retention dam. In addition purchased gravel and cobble will be used to augment the native material to achieve up to 10,000 cubic yard quantity. Additional improvements to in stream fish habitat will be made by placing large wood and/or boulders into Lower Deer Creek to create refugia for anadromous salmonid juveniles and adults. In an attempt to re-establish a beneficial shade canopy over Lower Deer Creek to cool the water temperature, non-native, invasive vegetation adjacent to the creek and associated floodplain will be removed and native riparian associated vegetation will be planted. The non-native vegetation will be removed by means of mechanical equipment and by hand. The use of pesticides is not planned for this project.

Stream Zone Defined: The stream zone is that portion of the stream channel that restricts lateral movement of water. The stream zone is delineated at the top of the bank or the outer edge of any riparian vegetation, whichever is more landward.

1. The notification, together with all supporting documents submitted with the notification, including the site maps, hydrological flow studies, benthic macro-invertebrate studies and detailed project plans, is hereby incorporated into this agreement to describe the location and features of the proposed project. The Operator agrees that all work shall be done as described in the notification and supporting documents, incorporating all project modifications, wildlife resource protection features, mitigation measures, and provisions as described in this agreement. Where apparent conflicts exist between the notification and the provisions listed in this agreement, the Operator shall comply with the provisions listed in this agreement. The Operator further agrees to notify the Department of any modifications made to the project plans submitted to the Department. At the discretion of the Department, this agreement will be



amended to accommodate modifications to the project plans submitted to the Department and/or new project activities. Please see the current fee schedule to determine the appropriate amendment fee.

2. Documents, plans, surveys, notifications, and requests pertaining to this project or required by this agreement may be sent via email to Robert Hosea at bhosea@dfg.ca.gov or delivered to the Department of Fish and Game at 1701 Nimbus Road, Suite A, Rancho Cordova, CA 95670. Refer to Notification Number 1600-2009-0074-R2 when submitting documents to the Department.
3. The time period for completing the work within the stream zone of Lower Deer Creek and Squirrel Creek shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of April 15th to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities shall cease until all reasonable erosion control measures have been implemented prior to all storm events. Weather forecasts shall be documented upon request by the Department. Revegetation, restoration and erosion control work is not confined to this time period.
4. If the Operator finds more time is needed to complete the authorized activity, the Operator shall submit a written request for a work period time extension to the Department. The work period extension request shall provide the following information: 1) Describe the extent of work already completed; 2) Provide specific detail of the activities that remain to be completed within the stream zone; and 3) Detail the actual time required to complete each of the remaining activities within the stream zone. The work period extension request should consider the effects of increased stream conditions, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Time extensions are issued at the discretion of the Department. The Department will review the written request to work beyond the established work period. The Department will have ten calendar days to approve the proposed work period extension. The Department reserves the right to require additional measures designed to protect natural resources.
5. The Operator is responsible for obtaining all required permits and authorizations from local, state and federal agencies. The Operator shall notify the Department where conflicts exist between the provisions of this agreement and those imposed by other regulatory agencies. Unless otherwise notified, the Operator shall comply with the provision that offers the greatest protection to water quality, species of special concern and/or critical habitat.
6. A copy of this agreement shall be provided to the Contractor(s) who works within the stream zone of this project. A copy of this agreement and a copy of the project description, as submitted to the Department, must be available upon request at the work site. The Contractor(s) shall sign this agreement prior to working within the stream zone. The Contractor(s) or a designated crew supervisor(s) shall be on site the entire time a work crew is working near the stream zone. The supervisor(s) shall be completely familiar with the terms and conditions of this agreement and shall ensure compliance with all terms and conditions. The Department reserves the right to enter the project site at any time to ensure that there is compliance with the terms/conditions of this Agreement.

Initials:



7. The Operator shall notify the Department within two working days of beginning work within the stream zone of Lower Deer Creek and Squirrel Creek. In addition, the Operator/Contractor shall notify the Department within two working days of the completion of work within the stream zone on this project.
8. When work in a flowing stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Stream flow shall be diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation. No other diversion method shall be used without prior authorization by the Department. If another diversion method is preferred, the operator must submit a plan detailing the desired diversion method. Authorization of any other diversion method shall be at the discretion of the Department. The temperature of the diverted water will not be allowed to become elevated such that it may be deleterious to aquatic organisms downstream. The dissolved oxygen concentration of the diverted water will not be allowed to drop to a level that may be deleterious to downstream aquatic life.
9. No trees that contain active nests of birds that are protected by the Migratory Bird Act shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.
10. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. No native trees with a trunk diameter at breast height (DBH) in excess of four (4) inches shall be removed or damaged without prior consultation and approval of a Department representative. Using hand tools (clippers, chain saw, etc.); trees may be trimmed to the extent necessary to gain access to the work sites. All cleared material/vegetation shall be removed out of the riparian/stream zone.
11. Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This may require the placement of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to pass to downstream reaches. Passage of sediment beyond the sediment barrier(s) is prohibited. If any sediment barrier fails to retain sediment, corrective measures shall be taken. The sediment barrier(s) shall be maintained in good operating condition throughout the construction period and the following rainy season. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged silt fencing, coir logs, coir rolls, and/or straw bale dikes. The use of monofilament netting based erosion control blankets is **prohibited** within the stream zone or associated riparian areas. The Operator is responsible for the removal of non-biodegradable silt barriers (such as plastic silt fencing) after the disturbed areas have been stabilized with erosion control vegetation (usually after the first growing season). The Operator will remove the mesh or netting used to contain coir logs or rolls once the disturbed area has been stabilized if these logs or rolls are to left in the field to decompose. This netting poses an entrapment risk to native snake and raptor species that

Initials: 

may be present in the area. Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation, shall be halted until effective Department approved control devices are installed, or abatement procedures are initiated.

12. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter a stream or lake, by the Operator or any party working under contract, or with the permission of the Operator, shall be removed immediately. The Department shall be notified immediately by the Operator of any spills and shall be consulted regarding clean-up procedures.
13. During construction, the contractor shall not dump any litter or construction debris within the stream zone. All construction debris and associated materials shall be removed from the work site upon completion of this project.
14. All exposed/disturbed areas and access points within the stream zone left barren of vegetation as a result of the construction activities shall be restored using native vegetation. Successful restoration efforts depend on proper site preparation, timing of seed/plug application; placement of plants; placement of erosion protection materials; supplemental watering and post application maintenance. Site preparation may include the application of an herbicide designed to kill weed seeds in the soil. Post seed application may include the use of broadcast straw punched into the soil with the use of a sheep's foot roller or other device. It is recommended that the Operator consult a native plant specialist for restoration planning. The California Native Grassland Association maintains a list of businesses that specialize in native grass products and services <http://www.cnqa.org/>.
15. This agreement is not valid and work may not begin until the agreement is signed by a representative of the Department of Fish & Game. Stream alteration work authorized by this agreement expires five years following the date this agreement is signed by the Department. This agreement shall remain in effect for that time necessary to satisfy all required mitigation and monitoring measures.
16. Requests for Extensions (agreement renewal), Minor Amendments, and Major Amendments must be submitted in writing prior to expiration of the agreement or commencement of work on modified project plans. Extensions and Amendments are issued at the discretion of the Department. Please see the current fee schedule to determine the appropriate fee.
17. The Department may take enforcement action and reserves the right to suspend and/or revoke this agreement if the Department determines that the circumstances warrant. The circumstances that could require these Department actions include, but are not limited to, the following: A) Failure to comply with the terms/conditions of this agreement. B) The information provided by the operator in support of the agreement/notification is determined by the Department to be incomplete, or inaccurate. C) When new information becomes available to the Department representative(s) that was not known when preparing the original terms/conditions of this agreement. D) The project as described in the notification, agreement, or amendment has changed, or conditions affecting fish and wildlife resources change.

Initials: 

18. If, in the opinion of the Department, conditions arise or change in such a manner as to be considered deleterious to aquatic life, operations shall cease until corrective measures are taken.
19. It is understood that the Department enters into this agreement for purposes of establishing protective features for fish and wildlife, in the event that a project is implemented. The decision to proceed with the project is the sole responsibility of the Operator, and is not required by this agreement. It is agreed that all liability and/or incurred costs related to or arising out of the Operator's project and the fish and wildlife protective conditions of this agreement, remain the sole responsibility of The Operator. The Operator agrees to hold harmless and defend the State of California and the Department of Fish and Game against any related claim made by any party or parties for personal injury or other damage.

Initials: 

SIGNATURE PAGE

The Operator, as designated by the signature on this agreement, shall be responsible for the execution of all elements of this agreement. A copy of this agreement must be provided to contractor and subcontractors and must be in their possession at the work site.

Failure to comply with the provisions of this agreement and with other pertinent Code Sections, including but not limited to Fish and Game Code Sections 5650, 5652 and 5948, may result in prosecution.

Nothing in this agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of responsibility for compliance with applicable federal, state, or local laws or ordinances.

This agreement is not valid and work may not begin until the agreement is signed by a representative of the Department of Fish & Game.

Operator: Joanne A. Hild
Title: Executive Director
Organization: Friends of Deer Creek

Date January 12, 2010

Contractor: _____
Title: _____
Company: _____

Date _____

Department Representative: 
Sandra Morey, Regional Manager

Date 1/20/10

Initials: JH



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

May 27, 2010

Regulatory Division SPK-2009-01464

Ms. Joanne Hild
Friends of Deer Creek
132 Main Street
Nevada City, California 95959

Dear Ms. Hild:

This concerns your proposed Deer Creek Salmon and Steelhead Habitat Restoration project located on Deer Creek in Section 20, Township 16 North, Range 7 East, MDB&M Survey, Latitude 39.23492°, Longitude -121.21987°, near Penn Valley, Nevada County, California.

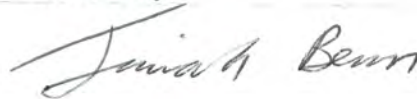
Based on the information you have provided, we have determined that the proposed revegetation portion of your project will not result in the discharge of dredged or fill material within waters of the United States. Therefore, a Department of the Army Permit (Permit) is not required for this work. Measures should be taken to prevent construction materials and/or activities from entering any waters of the United States. Appropriate soil erosion and sediment controls should be implemented onsite to achieve this end.

Our disclaimer of jurisdiction is only for the revegetation portion of your proposed project as it pertains to Section 404 of the Federal Clean Water Act and does not refer to, nor affect jurisdiction over any waters present on site. The gravel augmentation portion of your proposed project will require a Permit. Other Federal, State, and local laws may apply to your activities. Therefore, in addition to contacting other Federal and local agencies, you should also contact state regulatory authorities to determine whether your activities may require other authorizations or permits. In particular, your proposed activity may still be regulated by the State of California's Regional Water Quality Control Boards.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2009-01464 in any correspondence concerning this project. If you have any questions, please contact Ms. Erin Hess at our California North Branch Office, Regulatory Division, Sacramento District, U.S. Army Corps of Engineers, 1325 J Street, Room 1480, Sacramento, California 95814-2922, email *Erin.E.Hess@usace.army.mil*, or telephone 916-557-6740. For more information regarding our program, please visit our website at www.spk.usace.army.mil/regulatory.html.

Sincerely,



For
Erin E. Hess
Project Manager
California North Branch

Copies Furnished:

Mr. William Marshall, Storm Water and Water Quality Certification Unit, California
Regional Water Quality Control Board, Central Valley Region, 11020 Sun Center
Drive #200, Rancho Cordova, California 95670-6114

Mr. Kent Smith, California Department of Fish and Game, Region 2, 1701 Nimbus Drive,
Rancho Cordova, California 95670-4599

Ms. Jana Affonso, U.S. Fish and Wildlife Service, Endangered Species Division, 2800
Cottage Way, Suite W2605, Sacramento, California 95825-3901

Mr. Rodney R. McInnis, Acting Regional Administrator, National Marine Fisheries Service,
650 Capitol Mall, Suite 8-300, Sacramento, California 95814-4706



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
<http://www.dfg.ca.gov>

ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMON, Acting Director



"NOTICE OF EXEMPTION"

The Department has determined that your project as described in the subject Lake or Streambed Alteration Agreement is exempt from the California Environmental Quality Act (CEQA) and will file a notice of Exemption for your project. The Notice will be filed with the Office of Planning and Research, as required by CEQA. The Department's compliance with CEQA may be legally challenged for 35 days following the filing of the Notice of Exemption.

This completes the Department's agreement process. You may proceed with your project according to the terms and provisions of your Streambed Alteration Agreement if you have obtained all other permits required from local, other State, and Federal agencies.

AGREEMENT REGARDING PROPOSED STREAM ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and Joanne Hild representing Friends of Deer Creek of Nevada City, State of California, hereafter called the Operator, is as follows:

WHEREAS, pursuant to California Fish and Game Code, Section 1602, the Operator, on May 07, 2009, notified the Department that he intends to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of, the following water: Lower Deer Creek and Squirrel Creek, in the County of Nevada, State of California, Section 19 and 20, Township 16 North, Range 7 East, USGS Map Rough and Ready, MDB&M; and Section 22, 23, and 24, Township 16 North, Range 6 East, USGS Map Smartville, MDB&M.

WHEREAS, the Department, represented by Robert Hosea, has determined that such operations may substantially adversely affect existing fish and wildlife resources including: anadromous salmonid species, warm water fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife during the Operator's work. The Operator hereby agrees to accept the following recommendations as part of his work:

This agreement pertains to annual placement of up to 10,000 cubic yards of gravel and small cobble into Lower Deer Creek below the Lake Wildwood retention dam to enhance spawning habitat in approximately 4.25 miles of Lower Deer Creek from the retention dam to its confluence with the Yuba River. This gravel and cobble will be clean washed material and will, in part, be native materials removed from accumulated deposits behind the Lake Wildwood retention dam. In addition purchased gravel and cobble will be used to augment the native material to achieve up to 10,000 cubic yard quantity. Additional improvements to in stream fish habitat will be made by placing large wood and/or boulders into Lower Deer Creek to create refugia for anadromous salmonid juveniles and adults. In an attempt to re-establish a beneficial shade canopy over Lower Deer Creek to cool the water temperature, non-native, invasive vegetation adjacent to the creek and associated floodplain will be removed and native riparian associated vegetation will be planted. The non-native vegetation will be removed by means of mechanical equipment and by hand. The use of pesticides is not planned for this project.

Stream Zone Defined: The stream zone is that portion of the stream channel that restricts lateral movement of water. The stream zone is delineated at the top of the bank or the outer edge of any riparian vegetation, whichever is more landward.

1. The notification, together with all supporting documents submitted with the notification, including the site maps, hydrological flow studies, benthic macro-invertebrate studies and detailed project plans, is hereby incorporated into this agreement to describe the location and features of the proposed project. The Operator agrees that all work shall be done as described in the notification and supporting documents, incorporating all project modifications, wildlife resource protection features, mitigation measures, and provisions as described in this agreement. Where apparent conflicts exist between the notification and the provisions listed in this agreement, the Operator shall comply with the provisions listed in this agreement. The Operator further agrees to notify the Department of any modifications made to the project plans submitted to the Department. At the discretion of the Department, this agreement will be



amended to accommodate modifications to the project plans submitted to the Department and/or new project activities. Please see the current fee schedule to determine the appropriate amendment fee.

2. Documents, plans, surveys, notifications, and requests pertaining to this project or required by this agreement may be sent via email to Robert Hosea at bhosea@dfg.ca.gov or delivered to the Department of Fish and Game at 1701 Nimbus Road, Suite A, Rancho Cordova, CA 95670. Refer to Notification Number 1600-2009-0074-R2 when submitting documents to the Department.
3. The time period for completing the work within the stream zone of Lower Deer Creek and Squirrel Creek shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of April 15th to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities shall cease until all reasonable erosion control measures have been implemented prior to all storm events. Weather forecasts shall be documented upon request by the Department. Revegetation, restoration and erosion control work is not confined to this time period.
4. If the Operator finds more time is needed to complete the authorized activity, the Operator shall submit a written request for a work period time extension to the Department. The work period extension request shall provide the following information: 1) Describe the extent of work already completed; 2) Provide specific detail of the activities that remain to be completed within the stream zone; and 3) Detail the actual time required to complete each of the remaining activities within the stream zone. The work period extension request should consider the effects of increased stream conditions, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Time extensions are issued at the discretion of the Department. The Department will review the written request to work beyond the established work period. The Department will have ten calendar days to approve the proposed work period extension. The Department reserves the right to require additional measures designed to protect natural resources.
5. The Operator is responsible for obtaining all required permits and authorizations from local, state and federal agencies. The Operator shall notify the Department where conflicts exist between the provisions of this agreement and those imposed by other regulatory agencies. Unless otherwise notified, the Operator shall comply with the provision that offers the greatest protection to water quality, species of special concern and/or critical habitat.
6. A copy of this agreement shall be provided to the Contractor(s) who works within the stream zone of this project. A copy of this agreement and a copy of the project description, as submitted to the Department, must be available upon request at the work site. The Contractor(s) shall sign this agreement prior to working within the stream zone. The Contractor(s) or a designated crew supervisor(s) shall be on site the entire time a work crew is working near the stream zone. The supervisor(s) shall be completely familiar with the terms and conditions of this agreement and shall ensure compliance with all terms and conditions. The Department reserves the right to enter the project site at any time to ensure that there is compliance with the terms/conditions of this Agreement.

Initials: 

7. The Operator shall notify the Department within two working days of beginning work within the stream zone of Lower Deer Creek and Squirrel Creek. In addition, the Operator/Contractor shall notify the Department within two working days of the completion of work within the stream zone on this project.
8. When work in a flowing stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Stream flow shall be diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation. No other diversion method shall be used without prior authorization by the Department. If another diversion method is preferred, the operator must submit a plan detailing the desired diversion method. Authorization of any other diversion method shall be at the discretion of the Department. The temperature of the diverted water will not be allowed to become elevated such that it may be deleterious to aquatic organisms downstream. The dissolved oxygen concentration of the diverted water will not be allowed to drop to a level that may be deleterious to downstream aquatic life.
9. No trees that contain active nests of birds that are protected by the Migratory Bird Act shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.
10. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. No native trees with a trunk diameter at breast height (DBH) in excess of four (4) inches shall be removed or damaged without prior consultation and approval of a Department representative. Using hand tools (clippers, chain saw, etc.); trees may be trimmed to the extent necessary to gain access to the work sites. All cleared material/vegetation shall be removed out of the riparian/stream zone.
11. Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This may require the placement of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to pass to downstream reaches. Passage of sediment beyond the sediment barrier(s) is prohibited. If any sediment barrier fails to retain sediment, corrective measures shall be taken. The sediment barrier(s) shall be maintained in good operating condition throughout the construction period and the following rainy season. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged silt fencing, coir logs, coir rolls, and/or straw bale dikes. The use of monofilament netting based erosion control blankets is **prohibited** within the stream zone or associated riparian areas. The Operator is responsible for the removal of non-biodegradable silt barriers (such as plastic silt fencing) after the disturbed areas have been stabilized with erosion control vegetation (usually after the first growing season). The Operator will remove the mesh or netting used to contain coir logs or rolls once the disturbed area has been stabilized if these logs or rolls are to left in the field to decompose. This netting poses an entrapment risk to native snake and raptor species that

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13. During construction, the contractor shall not dump any litter or construction debris within the stream zone. All construction debris and associated materials shall be removed from the work site upon completion of this project.
14. All exposed/disturbed areas and access points within the stream zone left barren of vegetation as a result of the construction activities shall be restored using native vegetation. Successful restoration efforts depend on proper site preparation, timing of seed/plug application; placement of plants; placement of erosion protection materials; supplemental watering and post application maintenance. Site preparation may include the application of an herbicide designed to kill weed seeds in the soil. Post seed application may include the use of broadcast straw punched into the soil with the use of a sheep's foot roller or other device. It is recommended that the Operator consult a native plant specialist for restoration planning. The California Native Grassland Association maintains a list of businesses that specialize in native grass products and services <http://www.cnqa.org/>.
15. This agreement is not valid and work may not begin until the agreement is signed by a representative of the Department of Fish & Game. Stream alteration work authorized by this agreement expires five years following the date this agreement is signed by the Department. This agreement shall remain in effect for that time necessary to satisfy all required mitigation and monitoring measures.
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17. The Department may take enforcement action and reserves the right to suspend and/or revoke this agreement if the Department determines that the circumstances warrant. The circumstances that could require these Department actions include, but are not limited to, the following: A) Failure to comply with the terms/conditions of this agreement. B) The information provided by the operator in support of the agreement/notification is determined by the Department to be incomplete, or inaccurate. C) When new information becomes available to the Department representative(s) that was not known when preparing the original terms/conditions of this agreement. D) The project as described in the notification, agreement, or amendment has changed, or conditions affecting fish and wildlife resources change.

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Initials: 

SIGNATURE PAGE

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Failure to comply with the provisions of this agreement and with other pertinent Code Sections, including but not limited to Fish and Game Code Sections 5650, 5652 and 5948, may result in prosecution.

Nothing in this agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of responsibility for compliance with applicable federal, state, or local laws or ordinances.

This agreement is not valid and work may not begin until the agreement is signed by a representative of the Department of Fish & Game.

Operator: Joanne A. Hild
Title: Executive Director
Organization: Friends of Deer Creek

Date January 12, 2010

Contractor: _____
Title: _____
Company: _____

Date _____

Department Representative: 
Sandra Morey, Regional Manager

Date 1/20/10

Initials: 



**California Regional Water Quality Control Board
Central Valley Region**

Katherine Hart, Chair



Linda S. Adams
Acting Secretary for
Environmental Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

Edmund G. Brown Jr.
Governor

29 March 2011

Joanne Hild
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

**CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY
CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE
DEER CREEK SALMON AND STEELHEAD HABITAT RESTORATION PROJECT
(WDID#5A29CR00055), NEVADA COUNTY**

This Order responds to your 7 April 2009 application submittal for the Water Quality Certification of a salmon and steelhead habitat restoration project directly impacting approximately 1.5 acres of waters of the United States from the placement of gravel within the stream channel of Deer Creek. Gravel placement may indirectly enhance 14.6 acres of salmon and steelhead spawning habitat through the natural-hydraulic re-distribution of the new gravel.

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This Order serves as a Water Quality Certification (Certification) action that is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
4. This Certification is valid for the duration of the described project. This Certification is no longer valid if the project (as currently described) is modified, or coverage under Section 404 of the Clean Water Act has expired.

5. All reports, notices, or other documents required by this Certification or requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) shall be signed by a person described below or by a duly authorized representative of that person.
 - (a) For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (b) For a partnership or sole proprietorship: by a general partner or the proprietor.
 - (c) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official.

6. Any person signing a document under Standard Condition number 5 shall make the following certification, whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

ADDITIONAL TECHNICALLY CONDITIONED CERTIFICATION CONDITIONS:

In addition to the above standard conditions, Friends of Deer Creek shall satisfy the following:

1. Friends of Deer Creek shall notify the Central Valley Water Board in writing 7 days in advance of the start of any in-water activities. The notification should include the name of the project and the WDID number, and should be sent to the Central Valley Water Board contact person shown on page 5 of this Certification.
2. Except for activities permitted by the U.S. Army Corps under §404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
3. All areas disturbed by project activities shall be protected from washout or erosion.
4. Friends of Deer Creek shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed project shall be adequately informed and trained regarding the conditions of this Certification.
5. An effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working during all phases of construction.

6. All temporarily affected areas will be restored to pre-construction contours and conditions upon completion of construction activities.
7. Friends of Deer Creek shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that project activities result in any materials reaching surface waters or; 3) When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the project and 300 feet downstream of the active work area. Sampling results shall be submitted to this office within two weeks of initiation of sampling and every two weeks thereafter. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in water work
Settleable Material	ml/l	Grab	Same as above
Visible construction related pollutants	Observations	Visual Inspections	Continuous throughout the construction period

8. Activities shall not cause turbidity increases in surface water to exceed:
 - (a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
 - (b) where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
 - (c) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - (d) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
 - (e) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be assessed by prior permission of the Central Valley Water Board.
9. Activities shall not cause settleable matter to exceed 0.1 ml/l in surface waters as measured in surface waters 300 feet downstream from the project.
10. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the work area or downstream. Friends of Deer Creek shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
11. Friends of Deer Creek shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.

12. Friends of Deer Creek shall comply with all California Department of Fish and Game requirements for the project.
13. The use of netting material (e.g., monofilament-based erosion blankets) that could trap aquatic dependent wildlife is prohibited within the Project Area.
14. Friends of Deer Creek must obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board for any project disturbing an area of 1 acre or greater.
15. The Conditions in this Certification are based on the information in the attached "Project Information." If the information in the attached Project Information Sheet is modified or the project changes, this Certification is no longer valid until amended by the Central Valley Water Board.
16. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State and Federal law. The applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with this Certification.
 - (a) If Friends of Deer Creek or a duly authorized representative of the project fails or refuses to furnish technical or monitoring reports, as required under this Certification, or falsifies any information provided in the monitoring reports, the applicant is subject to civil, for each day of violation, or criminal liability.
 - (b) In response to a suspected violation of any condition of this Certification, the Central Valley Water Board may require Friends of Deer Creek to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
 - (c) Friends of Deer Creek shall allow the staff(s) of the Central Valley Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the project premises for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification and determining the ecological success of the project.
17. Friends of Deer Creek shall provide a Notice of Completion (NOC) no later than 30 days after the project completion. The NOC shall demonstrate that the project has been carried out in accordance with the project's description (and any amendments approved). The NOC shall include a map of the project location(s), including final boundaries of any in situ restoration area(s), if appropriate, and representative pre and post construction photographs. Each photograph shall include a descriptive title, date taken, photographic site, and photographic orientation.
18. Gravel that is placed into waters of the State must be cleaned with water prior to placement into waters of the State. The wash-water must be contained so that it does not come into contact with waters of the State. If the soil and sediments left over from the washed rock

exceed State and Federal toxicity standards, then Friends of Deer Creek must contact the Central Valley Water Board for an approved method of disposal.

19. This project must not create areas that could trap fish and isolate them from the main stream channel.
20. To minimize impacts to water chemistry within Deer Creek, all gravel used for this restoration project must be mined or extracted from within the Yuba River watershed. If gravel from outside of the Yuba River watershed is proposed for use, then Friends of Deer Creek must contact the Central Valley Water Board and request additional written authorization.
21. All riparian vegetation (native and/or non-native) removed during this project must be replaced by an equivalent amount of native riparian vegetation. For example, every square foot of riparian vegetation that is removed must be replaced by an equivalent or greater amount of native riparian vegetation. Compliance with this condition must be documented five years (plus or minus three months) from the date on this Certification. To document compliance, Friends of Deer Creek must submit a report that documents and maps the areas of riparian vegetation removal and documents the success of the native riparian vegetation that was planted and/or re-established in place of the removed vegetation. Failure to re-establish all disturbed riparian areas is a violation of this Certification. After riparian areas are re-established with vegetation, no maintenance will occur within the riparian corridor unless additional written authorization has been granted by the Central Valley Water Board.
22. Final copies of all water quality monitoring reports related to this project must be submitted to the Central Valley Water Board.

CENTRAL VALLEY WATER BOARD CONTACT:

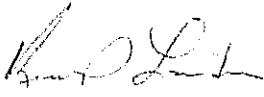
Daniel Worth, Environmental Scientist
11020 Sun Center Drive #200
Rancho Cordova, California 95670-6114
dworth@waterboards.ca.gov
(916) 464-4709

WATER QUALITY CERTIFICATION:

I hereby issue an Order certifying that any discharge from the Friends of Deer Creek, Deer Creek Salmon and Steelhead Habitat Restoration Project (WDID#5A29CR00055) will comply with the applicable provisions of §301 ("Effluent Limitations"), §302 ("Water Quality Related Effluent Limitations"), §303 ("Water Quality Standards and Implementation Plans"), §306 ("National Standards of Performance"), and §307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Resources Control Board Water Quality Order No. 2003-0017 DWQ "Statewide General Waste Discharge Requirements For Dredged Or Fill Discharges That Have Received State Water Quality Certification (General WDRs)".

Continue on next page

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with Friends of Deer Creek's project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009.


for

Pamela C. Creedon
Executive Officer
Central Valley Regional Water Quality Control Board

Enclosure: Project Information

cc: See enclosure, page 10

PROJECT INFORMATION

Application Date: 7 April 2009

Applicant: Joanne Hild
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

Project Name: Deer Creek Salmon and Steelhead Habitat Restoration Project

Application Number: WDID#5A29CR00055

Type of Project: Salmon and Steelhead Habitat Restoration

Approximate Timeframe of Project Implementation: Annually between 15 April and 15 October

Project Location: Section 19, 20, 22, 23 and 24, Township 16 North, Range 7 and 6 East, MDB&M. Latitude: 39.2358° and Longitude: 121°.2190".

County: Nevada County

Receiving Water(s) (hydrologic unit): Deer Creek, Sacramento Hydrologic Basin, Yuba River Hydrologic Unit #17.12 and #17.20, Browns Valley HSA

Water Body Type: Streambed

Designated Beneficial Uses: The *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009 (Basin Plan) has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include, but are not limited to: Municipal and Domestic Water Supply (MUN); Agricultural Supply (AGR); Industrial Supply (IND), Hydropower Generation (POW); Groundwater Recharge, Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); and Wildlife Habitat (WILD). A comprehensive and specific list of the Beneficial Uses applicable for the project area can be found at http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

303(d) List of Water Quality Limited Segments: The project is located within a water quality limited segment for pH in Deer Creek (Yuba County). This restoration project is not a source of impact for the identified pollutant in the 303(d) list, because local-native rock will be used for the project. The most recent list of approved water quality limited segments can be found at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/r5_06_303d_reqtmlds.pdf

Project Description (purpose/goal): The Central Valley Water Board and Nevada County Sanitation District #1 (NCSD) negotiated the implementation of a gravel augmentation project on lower Deer Creek, as a Supplemental Environmental Project (SEP), as part of penalties assessed against the NCSD for illegal waste discharges into Deer Creek (Administrative Civil

Liability Order No. R5-2009-0553). Friends of Deer Creek is under contract with the NCSD to complete the gravel augmentation project.

Friends of Deer Creek proposes to annually place as much as 10,000 cubic yards of gravel and small cobble into Deer Creek downstream of the Lake Wildwood dam (Dam). The gravel used for this project will be collected from above the Dam, or will be purchased from a local supplier who has extracted it from within the Yuba River watershed. The Project intends to enhance spawning habitat in approximately 1.5 acres of Deer Creek located between the Dam and the confluence with the Yuba River. The gravel placement may also indirectly enhance 14.6 acres of salmon and steelhead spawning habitat through the natural-hydraulic re-distribution of the new gravel. All gravel and cobbles will be tested for mercury and Title 22 metals, and will be cleaned and washed prior to placement. The wash-water from gravel cleaning will be contained so that it does not come in contact with waters of the State. The augmentation of gravel below the Dam will restore a critical ingredient of salmonid spawning habitat as well as a vital but poorly understood element in the overall function of the stream, with potential beneficial impacts to temperature, flow, and dissolved oxygen for fish and other wildlife populations. The gravel placement will occur annually between 15 April and 15 October during periods of dry weather and low stream flow. It is estimated that the project will take 56 hours annually.

Preliminary Water Quality Concerns: Construction activities may impact surface waters with increased turbidity and settleable matter.

Proposed Mitigation to Address Concerns: Friends of Deer Creek will implement Best Management Practices (BMPs) to control sedimentation and erosion. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. Friends of Deer Creek will conduct turbidity and settleable matter testing during in-water work, stopping work if the Basin Plan criteria are exceeded or are observed.

Fill/Excavation Area: Approximately 10,000 cubic yards of clean native rock will be placed annually into approximately 1.5 acres of waters of the United States. Gravel placement may indirectly enhance 14.6 acres of salmon and steelhead spawning habitat through the natural-hydraulic re-distribution of the new gravel.

Dredge Volume: None

U.S. Army Corps File Number: SPK-2009-01464

Department of Fish and Game Streambed Alteration Agreement: The California Department of Fish and Game signed the Streambed Alteration Agreement on 20 January 2010.

Possible Listed Species: Chinook salmon, Central Valley steelhead, western pond turtle, California red-legged frog

Status of CEQA Compliance: The Central Valley Water Board determined that this gravel augmentation project meets Categorical Exemption criteria under Title 14, Section 15333 of the California Code of Regulations, which exempts small habitat restoration projects. The Central Valley Water Board filed a Notice of Exemption with the Office of Planning and Research on 23 March 2011.

Compensatory Mitigation: The Central Valley Water Board is not requesting compensatory mitigation for this restoration project.

Application Fee Provided: Total fees of \$640.00 have been submitted to the Central Valley Water Board as required by 23 CCR §3833b(3)(A) and by 23 CCR §2200(e).

DISTRIBUTION LIST

United States Army Corp of Engineers
Sacramento District Office
Regulatory Section, Room 1480
1325 J Street
Sacramento, CA 95814-2922

United States Fish & Wildlife Service
Sacramento Fish & Wildlife Office
2800 Cottage Way
Sacramento, CA 95825

Jeff Drongesen
Department of Fish and Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

Bill Jennings
CA Sportfishing Protection Alliance
3536 Rainier Avenue
Stockton, CA 95204

(Electronic copy only) Bill Orme
State Water Resources Control Board
401 Certification and Wetlands Unit Chief

(Electronic copy only) Dave Smith
Wetlands Section Chief (W-3)
United States Environmental Protection Agency



William Sheatsley

stevieandbill@sheatslev.com

15930 Indian Flat Nevada City, California 95959

Tel 530 265-2808 Fax 530 265-6268

Contractors License # 750059

Joanne Hild, Executive Director

Friends of Deer Creek

132 Main Street

Nevada City, CA 95959

March 31, 2009

Dear Joanne,

On behalf of the Sheatsley Trust, I am happy to support Friends of Deer Creek's proposed Deer Creek Salmon and Steelhead Habitat Restoration Project, an effort to augment the gravel supply on Deer Creek below the dam on Lake Wildwood reservoir and to restore native riparian vegetation.

The trust owns 115 acres on the banks of Deer Creek below Lake Wildwood that is permanently protected from development. Friends of Deer Creek has the use of the property for their monthly monitoring activities. The Trust will allow Friends of Deer Creek to access the property for the purpose of implementing riparian revegetation efforts, will allow access to heavy equipment for the purpose of delivering gravel, and will continue to allow access for regular monitoring in perpetuity.

The Sheatsley Trust will allow access to the Department of Fish and Game as needed for non-enforcement personnel to inspect the project site to determine whether adequate safeguards are in place for fish and wildlife.

Sincerely,

William Sheatsley

MAIL
Classic

Fwd: Re: Deer Creek Salmon and Steelhead Habitat Restoration Project Monday, June 7, 2010 9:19 AM

From: "Justin Wood" <justin@friendsofdeercreek.org>
To: "'Jane Sellen'" <jane@friendsofdeercreek.org>, "'Joanne Hild'" <joanne@friendsofdeercreek.org>

----- Original Message -----

Subject: Re: Deer Creek Salmon and Steelhead Habitat Restoration Project

Date: Fri, 4 Jun 2010 15:55:37 -0700

From: Justin Wood <justin@friendsofdeercreek.org>

To: Justin Wood <justin@friendsofdeercreek.org>

Justin:

This is in response to your request for a letter of support for the **Deer Creek Salmon and Steelhead Habitat Restoration Project** (project). As you know, I serve as the U.S. Fish and Wildlife Service's Habitat Restoration Coordinator for the Yuba River watershed under the Anadromous Fish Restoration Program.

The project, as proposed, has three objectives:

1. To restore critical habitat for three species of California Central Valley salmon and steelhead;
2. To engage the community and local students in restoration efforts; and
3. To increase access and opportunities for fishing and boating.

I strongly support this project because all three objectives support the mission of the U.S. Fish and Wildlife Service (see below) and because implementation is likely to be successful at relatively low cost. Gravel and cobble injected as part of the project are expected to move downstream with high flows, and would improve salmon and steelhead spawning habitat in lower Deer Creek at its confluence with the Yuba River near Englebright Dam. Gravel is quite limited in this reach of the Yuba River, where salmon have been observed attempting to spawn on bedrock as well using the little gravel that is available. The cobble and improvements to water quality are expected to improve habitat conditions for rearing juvenile salmon and steelhead. Finally, the local public outreach and education component of the project is crucial for gaining and maintaining long term support for restoration activities in the watershed.

Thank you for the opportunity to state my support for this project.

Beth

Elizabeth A. Campbell, Ph.D.
U.S. Fish and Wildlife Service
Anadromous Fish Restoration Program
4001 N. Wilson Way
Stockton, CA 95205-2486
Phone: (209) 334-2968 ext 402
Fax: (209) 334-2171
Cell: (209) 403-1344

Our mission is, working with others, to conserve, protect, and enhance fish, wildlife, and plants

and their habitats for the continuing benefit
of the American people.



Forest Charter School

A Personalized Learning Program
Accredited by the Western Association of Schools and Colleges

Sierra Nevada Conservancy
11521 Blocker Drive Suite 205
Auburn, CA 95603

January 9, 2012

To whom it may concern,

On behalf of the PACE Homeschool Cooperative of Forest Charter School, I am happy to offer my full support for the proposals offered by Sierra Streams Institute to restore a rare meadow habitat in the lower Deer Creek watershed.

Our students have participated in the hands-on science education program for home schooled students offered by Sierra Streams since August 2011. Students have found the experience of working with scientists on active restoration projects in our home watershed to be a very valuable way of acquiring scientific knowledge, while increasing the sense of environmental stewardship among our youth and offering them the opportunity to make a difference in their community. The program is an excellent blend of rigorous science and engaging activities offered in weekly four-hour blocks. We look forward to continuing to offer our students access to this high quality program, and to participate in this important effort to improve meadow habitat in a severely impacted reach of Deer Creek.

Please let me know if I can provide any further information.

Peter Sagebiel
Executive Director



NEVADA COUNTY SANITATION DISTRICT NO. 1

950 MAIDU AVENUE, SUITE 290, NEVADA CITY, CA 95959-8617
(530) 265-1411 FAX (530) 265-9849 <http://new.mvnevadacounty.com>

Steven L. DeCamp
Deputy District Administrator

Mark Miller
Director of Sanitation

March 30, 2009

File: 300.1472 002

Joanne Hild, Executive Director
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

SUBJECT: Deer Creek Salmon and Steelhead Habitat Restoration Project

Dear Ms. Hild:

On behalf of the Nevada County Sanitation District No. 1, I am pleased to support Friends of Deer Creek's proposed Deer Creek Salmon and Steelhead Habitat Restoration Project, an effort to augment the gravel supply on Deer Creek below the dam on Lake Wildwood reservoir, to plan for the removal of barriers to fish passage, and to restore native riparian vegetation.

The Sanitation District is currently collaborating with Friends of Deer Creek in a gravel augmentation project as a compensatory mitigation imposed by the Central Valley Regional Water Quality Control Board, which will provide matching funds for the current proposal. The scope and efficacy of the restoration effort will be greatly enhanced with increased funding. This project will restore the gravel supply that is prevented from passing downstream by the presence of the dam on Lake Wildwood reservoir, and is an important element in the effort to restore salmon and steelhead spawning areas on Deer Creek that have been impacted by the conditions downstream of the dam.

The Sanitation District will cooperate with the implementation of the project by allowing access on Sanitation District property for heavy equipment for the purpose of delivering gravel to the target sites for the project term. The Sanitation District will allow access to the Department of Fish and Game as needed for non-enforcement personnel to inspect the project site to determine whether adequate protections are in place for fish and wildlife. The Sanitation District also supports future efforts to implement gravel augmentation on an annual basis using gravels dredged from Lake Wildwood during the annual dewatering event.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mark Miller", written in a cursive style.

Mark Miller, Director
Nevada County Sanitation District No. 1

MM:cn

March 25, 2009

Joanne Hild, Executive Director
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

Re: Recovery Act: Deer Creek Salmon and Steelhead Habitat Restoration Project Proposal to NOAA Coastal and Marine Habitat Restoration Project Grants Program

Dear Ms. Hild:

As an owner of interest of more than 800 acres along the lower Deer Creek confluence with the Yuba River, I am happy to support Friends of Deer Creek's proposed Deer Creek Salmon and Steelhead Habitat Restoration Project, an effort to augment the gravel supply on Deer Creek below the dam on Lake Wildwood reservoir and to restore native riparian vegetation.

Of particular importance to this Project, we are currently in negotiation with the a national land trust organization and state funding agencies to convey through easement and/or fee title transfer a substantial portion of this property to California Department of Fish and Game. The property has also been identified as one of "critical importance" by the Yuba River Land and Water Conservancy for conservation of blue oak woodlands and restoration of native salmon and steelhead fisheries.

Concurrent with an ongoing dialogue with the Friends of Deer Creek, we are willing to develop parameters for access to this portion of the Creek and the Yuba River. These parameters could include allowing access for staff of Friends of Deer Creek and public agency partners to evaluate implementation options for gravel augmentation and revegetation activities. If feasible, this could also include access for access for equipment to deliver gravel to the target site.

We are excited by this incredibly worthwhile effort and interested in developing this relationship and conversation further.

Sincerely,



Brian Bisnett

YUBA RIVER LAND AND WATER CONSERVANCY

March 29, 2009

Joanne Hild, Executive Director
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959

Re: Support Letter for Deer Creek Salmon and Steelhead Habitat Restoration Project

Dear Joanne:

The Yuba River Land and Water Conservancy works to protect river, meadow and woodlands along the Yuba River. We do this by acquiring or causing to be acquired "high priority" parcels throughout the Yuba River watershed. Currently, we have negotiated/in the process of negotiating options to acquire more than 4,700 acres spanning approximately 9.5 river miles under four distinct ownerships. State agencies have committed \$3.7 million to date towards the acquisition of these properties.

Several of these high priority parcels include substantial portions of lower Deer Creek. These parcels are considered high priority for their capacity for salmon and steelhead restoration efforts such as the one being proposed.

We consider this proposal to be a generational step forward in the ongoing collaborations to restore habitat in the Yuba River Watershed. Collectively, our board has worked for decades on behalf of this invaluable resource and we believe that this project in particular is deserving of support and federal partnership.

We will continue to be available to assist in any manner the implementation of this Project.

Sincerely,

SG (digital signature)

Shawn Garvey/Chairman of the Board

Wild Moon Ranch

Ian Garfinkel manager / owner
13729 Mooney Flat Road
Smartsville, CA 95977
530-432-9301

Joanne Hild, Executive Director
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959
March 31, 2009


Dear Joanne,

I am pleased to support Friends of Deer Creek's proposed Deer Creek Salmon and Steelhead Habitat Restoration Project, an effort to restore native riparian vegetation and remove invasive species.

In addition to the ongoing volunteer support I give to Friends of Deer Creek as a monthly water quality monitor, I will also allow access onto my 115 acre property bordering Deer Creek on both sides at 13729 Mooney Flat Road, Smartsville, California, APN # 50-470-06, for the purpose of implementing a revegetation project and non-native species eradication project in the riparian zone.

Sincerely,

Ian Garfinkel

A handwritten signature in black ink, appearing to read "Ian Garfinkel", written in a cursive style.



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Sierra Nevada Conservancy
11521 Blocker Drive Suite 205
Auburn, CA 95603

January 9, 2012

To whom it may concern,

On behalf of the PACE Homeschool Cooperative of Forest Charter School, I am happy to offer my full support for the proposals offered by Sierra Streams Institute to restore a rare meadow habitat in the lower Deer Creek watershed.

Our students have participated in the hands-on science education program for home schooled students offered by Sierra Streams since August 2011. Students have found the experience of working with scientists on active restoration projects in our home watershed to be a very valuable way of acquiring scientific knowledge, while increasing the sense of environmental stewardship among our youth and offering them the opportunity to make a difference in their community. The program is an excellent blend of rigorous science and engaging activities offered in weekly four-hour blocks. We look forward to continuing to offer our students access to this high quality program, and to participate in this important effort to improve meadow habitat in a severely impacted reach of Deer Creek.

Please let me know if I can provide any further information.

Peter Sagebiel
Executive Director



Forest Charter School

A Personalized Learning Program
Accredited by the Western Association of Schools and Colleges

January 18, 2012

Sierra Nevada Conservancy
11521 Blocker Drive Suite 205
Auburn, CA 95603

To whom it may concern:

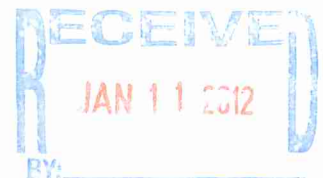
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Please let me know if I can provide any further information.

Sincerely,

Peter Sagebiel
Executive Director



Lower Deer Creek Revegetation Project Long Term Management Plan

Currently, there are three non-native invasive species that are dominating the majority of the proposed restored habitat and contributing to the fuel load of the area. In order to restore the area to a functioning native habitat the removal and control of Scotch Broom (*Cytisus scoparius*), Star Thistle (*Centaurea solstitialis*), and Himalayan Blackberry (*Rubus armenianus*) is imperative. These invasive exotic species manipulate the local habitat by changing the food source for the soil microbial community which in turn changes the nutrient pool from which native plants draw their resources. Along with the change in nutrient availability, the chemistry of the soil has an effect on the water infiltration rates. Removing these species will allow the soils to recover which will then allow native species to have a healthier habitat in which they can grow. Replacing these species with those that are native to the area will create a well-balanced ecosystem that will sustain itself in the future.

Management Plan Objectives

- I. Our first objective of the ten-year management plan is to remove the three main exotic species as much as possible from the site. This will open the opportunity for native species to establish themselves as the dominant plant material within the landscape. The aggressive growth habits of these invasive species will require our control efforts to continue into perpetuity. By removing the major masses of invasive species we will be reducing the fuel load and improve the overall health of the native ecosystem.
- II. The second objective of our management plan will be planting and establishing the native species at this site. Native re-vegetation will assist in the control of the three major invasive species by out-competing them for available soil space and resources. Establishing these plants will be an ongoing project for up to three years while we monitor their success and adaptability. Through these re-vegetation efforts we will restore the biodiversity of this site.
- III. The third objective for our long term management plan will be to maintain and monitor the newly planted native species, control the three main invasive species, and establish healthy habitats along the three main planting areas. In order to accomplish this objective we will be performing monthly monitoring of the areas in which the invasive plant material was removed. Through these monitoring efforts, we will achieve better insight for our ongoing management of this area. Along with this insight we will obtain valuable knowledge of these species and the habitat surrounding them that will benefit not only our work at SSI, but the work of other restoration efforts in the future.

We will reach these objectives with help from our network of dedicated volunteers and staff. SSI currently has approximately 100 volunteers and this number continues to

grow. Many of these volunteers have been committing their time and efforts to the organization for over ten years. These volunteers will be assisting us as we remove unwanted plant material, plant and manage the new material, and monitor the progress of the newly established habitat. Reaching all of these objectives will result in healthy riparian and meadow habitats that will contribute to the overall improvement of water quality.

Invasive Species Removal and Management

C. scoparius

Removal Technique

Remove the largest, most mature parent plants with the use of a weed wrench. Focus secondarily on the removal of the outlying plants, working into the densest population. This will lessen the chances of continued seed dispersal to new areas. Continue the removal of newer plants as the season allows.

Using these methods we will remove as much of the root system and above ground biomass prior to blooming. In order to minimize soil disturbance we will take care to replace soil when it has been displaced due to heavy pulling and uprooting.

Along with these removal methods we will enlist the aid of the Fire Safe Council of Nevada County to assist with the removal and potential burning of plant material. In addition to the Fire Safe Council, Sierra Streams Institute has a strong network of committed local volunteers that will enable us to accomplish these continuing management efforts.

Timeline

Annually March-June

For best results the removal of Scotch Broom should begin when the first signs of bloom are seen. The bloom time is variable depending on weather. Typically, the ideal removal time will range between the months of March and June. These removal methods prove to be most beneficial when the soil is moist allowing for the roots of the plant to be removed along with the above-ground biomass.

Because of the tendency for the seed from Scotch Broom to remain viable in the soil for several years, applying these control methods annually will result in better success for continuing years as the native species establish their dominance.

***C. solstitialis* (Star Thistle)**

Removal Technique

Mowing and hand pulling prior to the maturation of seed heads will reduce the number of Star Thistle within the area. Following the initial mowing we will be removing plants by manual weeding methods such as pulling, cutting, and hoeing. Eradication is unrealistic; therefore these removal techniques will be implemented annually to insure that there will be minimal disturbance to the soil while still controlling the Star Thistle population.

Timeline

The ideal time for mowing Star Thistle is variable. These removal methods will be contingent upon weather and bloom time during the season. Depending on the weather, the bloom time may range between May – Sept. In order to prevent the plant from going to seed, we will be mowing and hand-pulling throughout the season.

R. armenianus (Himalayan Blackberry)

Removal Technique

Mowing the blackberries is ideal to stunt their fruit production and growth. Cutting back these plants while they are flowering and before they set fruit is the best way to begin eliminating them from the area. Following the mowing it is best to remove the root crowns using a mattock, spade, or heavy gardening hoe.

Following the removal of the blackberry, we will install jute netting to protect against erosion and sediment runoff. Once the native trees have been planted and established their growth and canopy will shade out the population of intrusive blackberries.

Timeline

Mowing and cutting should take place early to mid-season when the plants have begun to flower, but have not started to set fruit. Using a mattock, spade, or heavy gardening hoe to remove the root ball of the plants should take place when the soil is relatively loose and damp for easy removal. Removing the rootstock multiple times during the growing season will help prevent these from returning and becoming more invasive.

Invasive Plant Species Removal Timeline

Begin August 2012	1. Invasive Plant Species Removal
August 2012	1.1 Preliminary planning and monitoring Survey existing vegetation communities; engage services of botanist
August – September 2012	1.2 Create removal plan for Star Thistle Gather materials and tools for removal; Monitor rainfall; Monitor forming seed heads of species population; Schedule volunteer workdays
August 2012 – September 2013	1.3 Implementation Mow area with greatest population of Star Thistle; Mow as needed prior to population forming mature seed heads; Control re-infestations as needed; Monitor and assess removal site
February 2013	1.4 Create removal plan for Scotch Broom Gather materials and tools for removal; Monitor rainfall; Monitor flowering of species population; Schedule volunteer workdays; Enlist the aid of the Fire Safe Council of Nevada County
March – June 2013	1.5 Implementation Monitor and assess removal site; Mechanical removal of the largest parent plants; Mechanical removal of outlying and immature Scotch Broom
May 2013	1.6 Create removal plan for Himalayan Blackberry Gather materials and tools for mowing and removal; Monitor

	rainfall; Monitor flowering; Schedule volunteer workdays
May – July 2013	1.7 Implementation Mow entire population; Manually cut any plants that may be out of reach from mower; Mechanically remove root ball and crowns from soil
Aug 2012 in perpetuity	1.8 Long term management and adaptive management Implement monthly monitoring and management plan; Control seed dispersal and population growth

Native Re-Vegetation and Management

Native re-vegetation will follow invasive species removal in order to restore structure and function to the habitat. While the soil is still freshly disturbed following the removal of the invasive species, it is best to fill these areas with native species before weeds become established. Establishing native vegetation cover will also help stabilize the soils, eliminate sediment runoff, and protect water quality. Grass species, specifically, were chosen based on their root growth to assist with erosion control. To limit any additional soil disturbance in the planting area we will enlist the use of a garden auger to drill holes in which to plant those species that are grown by divisions or in small container sizes.

Plants may require irrigation during the dry summer months, particularly for those plants installed in the spring. This should be taken into consideration before planting occurs. Many of the species involved in this re-vegetation are at least moderately drought tolerant. Some species however, may need to be planted later in the project after the more drought tolerant species have established and can play a nursery role providing shade and better water retention. Following the initial planting season, we will monitor any plant loss and amend the area with more plants as needed within the first three years of management.

The selection of native grasses, forbs, and trees are those found to be the most beneficial to the surrounding wildlife, will restore and preserve the soil systems, and are sustainable to the climate conditions of the area. This plant palette was also selected based on the fire safe properties of these species. In order to restore this habitat we are selecting plant material that would be found on this site prior to the invasion of non-native species. The following descriptions highlight our reasons for the choice of each plant and its location within the site.

Upland to 100 year Floodplain Plant Selections and Descriptions

Shrubs/Low Growing

- Coyotebrush (*Baccharis pilularis*) – rapid growth rate; drought tolerant
- Coffeeberry (*Rhamnus californica*) – rapid growth rate; drought and fire tolerant, grows in course to medium soils
- Poison Oak (*Toxicodendron diversilobum*) –food for deer and various birds
- Sticky Whiteleaf Manzanita (*Arctostaphylos viscida*) - fruit provides food to many mammals and small birds; foliage provides nesting opportunities and coverage for small mammals and birds
- Silver Lupine (*Lupinus albifrons*) –fixes nitrogen; grows well in sandy/rocky soils
- Buckbrush (*Ceanothus cuneatus*) – grows well in upland, rocky, and sunny areas; fire and drought tolerant
- Turkey Mullein (*Croton setigerus*) – low-growing, found in dry upland areas; seeds eaten by wild doves and turkeys

- Vinegar Weed (*Trichostema lanceolatum*) – annual forb; medicinal properties; adapted to grow in xeric areas; beneficial to bees; seeds ripen in late fall and can be directly planted or kept dry and stored for spring planting
- Douglas' Sagewort (*Artemisia douglasiana*) – drought tolerant; provides coverage for birds

Trees

- Ponderosa Pine (*Pinus ponderosa*) - birds use seed for food and needles/branches for cover and nesting; grows rapidly and provides control of soil erosion
- Gray Pine (*Pinus sabiniana*) – seeds are edible; Easily found in native plant nurseries; adds diversity to the landscape
- Interior Live Oak (*Quercus wislizeni* var. *wislizeni*) – direct seed or germinate in pots; grows well in range of soils; fire tolerant; provides cover for variety of mammals and birds
- California Black Oak (*Quercus kelloggii*) – drought and fire tolerant; acorns used for food by humans and other animals; seeds can be harvested and planted immediately or refrigerate acorns and plant in spring
- California Buckeye (*Aesculus californica*) – ground story tree; able to direct sow seeds; rapid growth rate
- California Laurel (*Umbellularia californica*) – slow growing; able to grow in a range of habitats from upland to riparian and in alluvial floodplains; full sun to shade; seeds, roots, and leaves are used by wildlife for food and cover

Grasses/Flowers

- Common Madia (*Madia elegans*) – occurs in grasslands and open forests and on grassy slopes in valleys; seeds are source of food for native California Indian tribes
- Blue Wild Rye (*Elymus glaucus*) – native perennial grass; shade tolerant; establishes rapidly and controls sediment runoff
- California Yarrow (*Achillea millefolium* var. *californica*) – germinates well from seed; low-growing and fire tolerant; aggressive growth habit
- California Fescue (*Festuca californica*) – grows on serpentine soils; deep roots provide erosion control; shade tolerant
- Purple Needlegrass (*Nassella pulchra*) – establishes easily in poor soils; drought tolerant; deep root structure is valuable for erosion control

Stream Zone to 100 year Floodplain Plant Selection and Description

Willows

- Pacific Willow (*Salix lasiandra*) – grows rapidly and establishes roots quickly providing control of soil erosion; provides food and cover for wildlife
- Arroyo Willow (*Salix lasiolepis*) – more drought tolerant than other willow species; can be established closer to edge of 100 yr floodplain than other willow species
- Red Willow (*Salix laevigata*) – easily propagated from cuttings; rapid growth rate is beneficial when stabilizing along streams
- Narrowleaf Willow (*Salix exigua*) – grows within gravel bars/low terrace deposits; easily propagated from cuttings

Trees (non-willow)

- Fremont Cottonwood (*Populus fremontii* S. Watson) – deep root system will be beneficial to stabilizing banks upon removal of Himalayan Blackberry; provides habitat for wildlife and fish
- White Alder (*Alnus rhombifolia*) – riparian zone; grows along with the Cottonwood to assist with stabilizing the banks with its deep root system; seeds provide food to native bird species
- Valley Oak (*Quercus lobata*) – easily grown; provides habitat for birds, deer, and squirrels
- Oregon Ash (*Fraxinus latifolia*) – grows within 100 yr floodplain in seasonally flooded habitat; prefers moist conditions, tolerates a variety of soil types
- Blue Oak (*Quercus douglasii*) – fire tolerant; acorns provide food for wildlife; proves as a companion plant for Deer Grass (*Muhlenbergia rigens*)

Shrubs/Grasses/Low-Growing

- Deer Grass (*Muhlenbergia rigens*) - good for stabilizing stream banks and eroded areas; tolerates periodic flooding; provides cover for mule deer; provides food for the larval form of various butterflies; drought and fire tolerant
- Blue Elderberry (*Sambucus nigra* L. ssp. *caerulea*) – grows well in riparian or floodplain habitat; plants provide habitat for Valley Elderberry Longhorn Beetle (VELB); drought tolerant; grows well in course soils.
- Common Buttonbush (*Cephaethanlus occidentalis*) – grows well in riparian zones; seeds are consumed by wildlife

Sedge/Rush/Riparian Plants

- Naked Sedge (*Carex nudata*) – easy to establish
- Yellow Nut Sedge (*Cyperus esculentus*) – grows in wet conditions with poor drainage adjacent to stream/in wetland areas; very easy to grow
- Pacific Rush (*Juncus effuses*) – easily grown from division or seeds; root system provides shoreline protection; vegetation and seeds used by many animals
- California Wild Grape (*Vitis californica*) – propagated easily; provides cover and food for several animal species
- Licorice Fern (*Polypodium glycyrrhiza*) – provides evergreen groundcover habitat; provides food for insects and mammals
- Rough Cocklebur (*Xanthium strumarium*) – grows in floodplain areas; grows well in various soil types; reproduces readily; establishes as dominant ground cover

Native Plant Re-Vegetation Plant Palette

Latin	Common	Size	Quantity	Plant Spacing(ft on center)
<i>Achillea millefolium</i> var. <i>californica</i>	California Yarrow	container		2
<i>Aesculus californica</i>	California Buckeye	seed		6
<i>Alnus rhombifolia</i>	White Alder	container		8
<i>Artemisia douglasiana</i>	Douglas' Sagewort	container		3
<i>Arctostaphylos viscida</i>	Sticky White Leaf Manzanita	container		6
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	Coyotebrush	container		6
<i>Carex nudata</i>	Naked Sedge	divisions or TB		3
<i>Ceanothus cuneatus</i>	Buckbrush	TB/TP/Gal		6
<i>Cephalanthus occidentalis</i>	Common Buttonbush	cuttings		2
<i>Croton setigerus</i>	Turkey Mullein	container		3
<i>Cyperus esculentus</i>	Yellow Nut Sedge	container		3
<i>Elymus glaucus</i>	Wild Blue Rye	TB or direct seed		2
<i>Festuca californica</i>	California Fescue	seed		broadcast
<i>Fraxinus latifolia</i>	Oregon Ash	TP		9
<i>Juncus effusus</i> L. var. <i>pacificus</i>	Pacific Rush	container		3
<i>Lupinus albus</i>	Silver Lupine	seed		broadcast
<i>Madia elegans</i>	Common Madia	seed		broadcast
<i>Muhlenbergia rigens</i>	Deer Grass	container		3
<i>Nassella pulchra</i>	Purple Needlegrass	seed		broadcast
<i>Pinus ponderosa</i>	Ponderosa Pine	container		15
<i>Pinus sabiniana</i>	Gray Pine	container		15
<i>Polygodium glycyrrhiza</i>	Licorice Fern	container		3
<i>Populus fremontii</i> S. Watson	Fremont Cottonwood	cuttings/TP		9
<i>Quercus douglasii</i>	Blue Oak	acorn/TP		10
<i>Quercus kelloggii</i>	California Black Oak	acorn/TP		10
<i>Quercus lobata</i>	Valley Oak	acorn/TP		10
<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior Live Oak	acorn/TP		10
<i>Rhamnus californica</i>	Coffeeberry	container		10
<i>Salix exigua</i>	Narrowleaf Willow	cuttings		4
<i>Salix laevigata</i>	Red Willow	cuttings		4
<i>Salix lasiandra</i>	Pacific Willow	cuttings		4
<i>Salix lasiolepis</i>	Arroyo Willow	cuttings		4
<i>Sambucus nigra</i> L. ssp. <i>caerulea</i>	Blue Elderberry	TB/TP/Gal		6
<i>Toxicodendron diversilobum</i>	Poison Oak	cuttings		3
<i>Trichostema lanceolatum</i>	Vinegar Weed	seed		broadcast
<i>Umbellularia californica</i>	California Laurel	container		30
<i>Vitis californica</i>	California Wild Grape	container		20
<i>Xanthium strumarium</i>	Rough Cocklebur	seed		2

Native grasses are critical to establishing dominance in the soil structure in order to out-compete the root systems and seed banks of the Scotch Broom and Star Thistle. The grasses were chosen for their restorative characteristics and availability.

The flowering plants that we have selected will encourage pollinators to frequent the area and also provide more variety to our newly established landscape. Several of these species will establish themselves rapidly which will contribute to the efforts of eliminating the opportunity for the spread of invasive species. We will be planting in masses to create the best possible control of competing with the invasive species.

The selected trees for this habitat will provide shelter, structure, and erosion control as well as stabilizing the soils with their roots. The organic matter shed over time from these trees will benefit the surrounding soils.

Native Plant Re-Vegetation Timeline

Begin August 2012	2. Native Plant Re-vegetation
August 2012	2.1 Preliminary planning and monitoring Survey existing vegetation communities; Engage services of botanist; Research plant sources for collection and purchasing
August 2012	2.2 Create re-vegetation plan Create planting plan; Schedule seed collection and plant propagation; Order plants from nursery(s)
September 2013 – January 2017	2.3 Implementation Collect seeds and cuttings locally for propagation; Contract with local farms to grow plant specimens from seeds and cuttings;

	Prepare site for planting; Weed-eat or mow entire restoration area; Irrigate as needed; Weed-eat again to clean seed bank of non-natives; Plant native plant species; Install irrigation as needed; Irrigate as needed; Monitor and assess restoration site; Replant as needed
August 2012 in perpetuity	2.4 Long term management and adaptive management Implement monthly monitoring and management plan; Schedule volunteer workdays

Timeline for Native Grasses and Forbs Planting

These timelines are flexible and will vary depending upon the season.

In general, planting and seeding should occur primarily in the fall months. Planting at these times will enable the plants to become established prior to the summer drought period and cold winter temperatures will provide the necessary cold stratification for the germination of some species. Some plantings will also take place in the springtime.

Mar-Jun 2014

- Deergrass
- Buttonbush
- Silver Lupine
- Narrowleaf Willow
- Red Willow
- Pacific Willow
- Arroyo Willow
- Poison Oak

Nov – Jan 2013

- Purple Needlegrass (9.5lbs live seed/acre)
- Common Madia
- California Fescue - (10lb pure live seed/acre)
- California Yarrow
- California Buckeye
- White Alder
- Douglas' Sagewort
- Sticky Whiteleaf Manzanita
- Coyote Brush
- Carexnudata
- Buckbrush
- Turkey Mullein
- Yellow Nut Sedge
- Blue Wild Rye
- California Fescue
- Oregon Ash
- Pacific Rush
- Silver Bush Lupine
- Common Madia
- Ponderosa Pine
- Gray Pine
- Licorice Fern
- Fremont Cottonwood
- California Black Oak
- Valley Oak
- Interior Live Oak
- Coffeeberry
- Blue Elderberry
- Vinegar Weed
- California Laurel
- California Wild Grape
- Rough Cocklebur

Monitoring

Monitoring the effects of our exotic invasive species removal and re-vegetation installation will not only continue to fulfill our mission at Sierra Streams Institute, but also provide beneficial feedback for future restoration projects. Our goal is to implement the monitoring efforts listed below by once again utilizing the talents of our educated and dedicated volunteer task groups and staff.

Monitoring will be conducted on a monthly basis, in conjunction with Sierra Streams Institute's citizen-based volunteer water quality monitoring program. Each month volunteers visit three sites on the restoration property. These volunteers will be trained to assist a staff restoration ecologist with monitoring at the restoration site. These volunteer monitors have been visiting the three water quality monitoring sites since 2000, and have considerable on-the-ground experience at the restoration site, as well as a long-term commitment to monitoring that will continue into the future. The following provides a summary of the types of monitoring that will occur during this project:

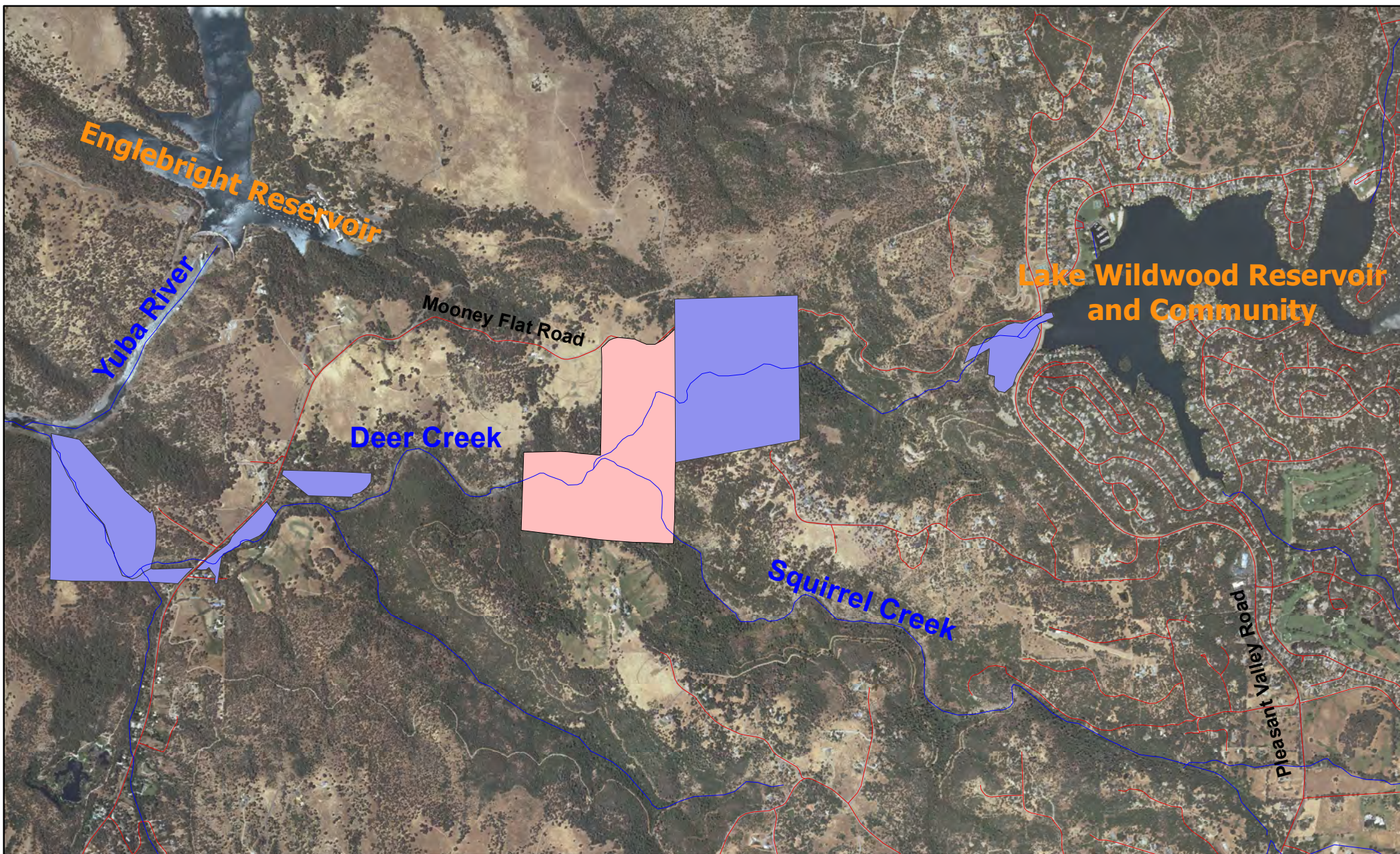
Prior to implementing the management plan we will monitor the following:

- Water quality in Deer/Squirrel creeks
- Macroinvertebrates/algae in Deer/Squirrel creeks
- Signs of bird and mammal nesting; use of habitat by birds and mammals
- Soil quality (EC and pH); soil moisture
- Above-ground biomass of native grasses

During and after our implementation of the management plan we will monitor the following:

- Water quality in Deer/Squirrel creeks
- Macroinvertebrates/algae in Deer/Squirrel creeks
- Success rates for all native species
- Soil quality (EC and pH); soil moisture
- Above-ground biomass of native grasses and invasive species
- Loss of plant material
- Re-growth of invasive species
- Any signs of outside disturbance from unexpected sources (i.e. human influences)
- Use of habitat by birds and mammals – nesting, foraging, etc

Volunteer monitors that visit this property for monthly monitoring activities (water quality, macroinvertebrate, and algae monitoring) have prior experience with invasive species removal, plant identification, bird surveys, and mammal surveys and will serve an instrumental role in assisting with long term monitoring and management of the project. Bird surveys and vegetation monitoring began at the project site in 2010, in conjunction with a pilot revegetation project on the property, and will provide a baseline dataset to compare with post-restoration data, as well as allow us to evaluate project success. Members of the local Audubon Society have assisted with bird surveys in the past and are committed to assisting with monitoring birds at this property over the long-term. In addition to the existing monitoring framework at this site, new monitoring plots and transects will be established for vegetation monitoring, and numerous other parameters will be added, as listed above, to monitor project success and allow for long-term adaptive management decisions to be made. Monitoring at these sites will continue in perpetuity, to ensure the long-term success and management of the project.







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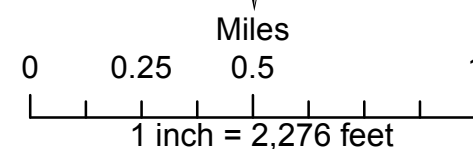
Sierra Streams Institute

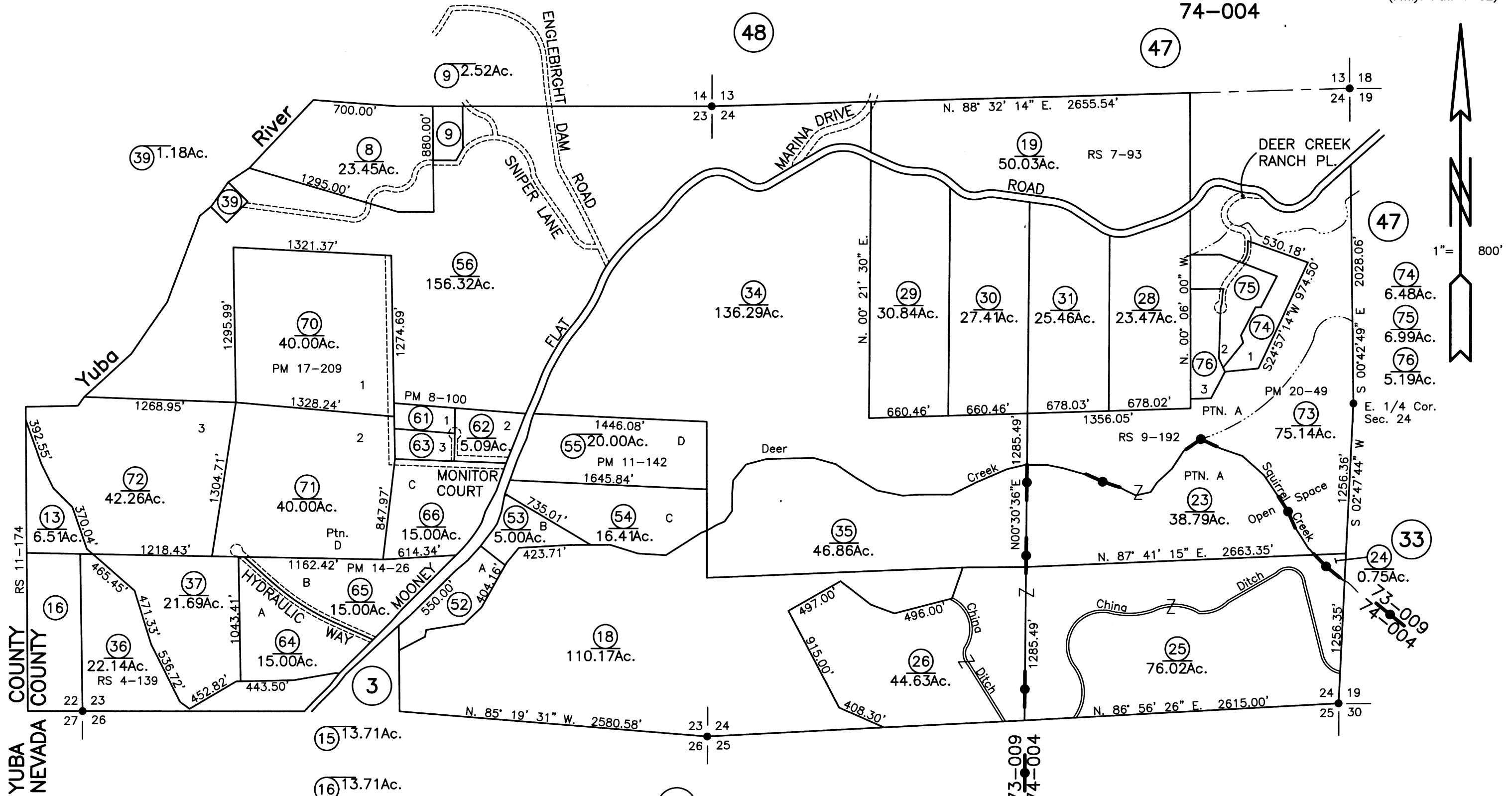
Lower Deer Creek Revegetation Project

Project Location Map

Legend

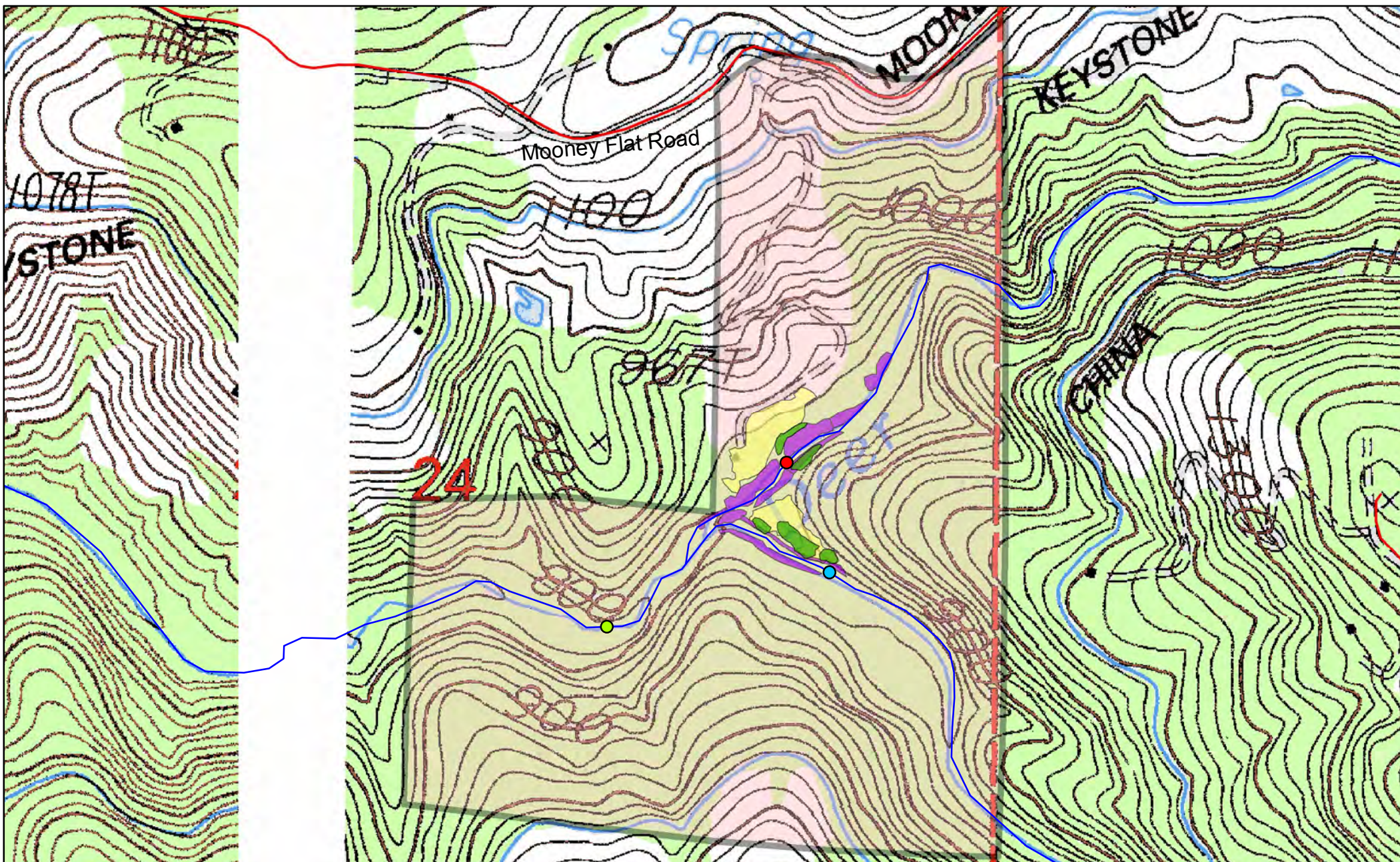
-  Creeks
-  Roads
-  Restoration Properties w/Landowner Agreements
-  SNC Grant Restoration Property





ASSESSOR'S PARCEL MAP
This map was prepared for assessment purposes only. No liability is assumed for the accuracy of data shown. Assessor's parcels may not comply with local lot-split or building site ordinances.

1-1-04
1-1-05
1-1-07
1-1-08



Legend

- | | |
|---|---|
| ● Site 8 | Scotch Broom Removal |
| ● Site 16 | Himalayan Blackberry Removal |
| ● Site 9 | Yellow Star Thistle Removal |
| — Creeks | Restoration Property |
| — Roads | |

Sierra Nevada Conservancy 2012 Grants

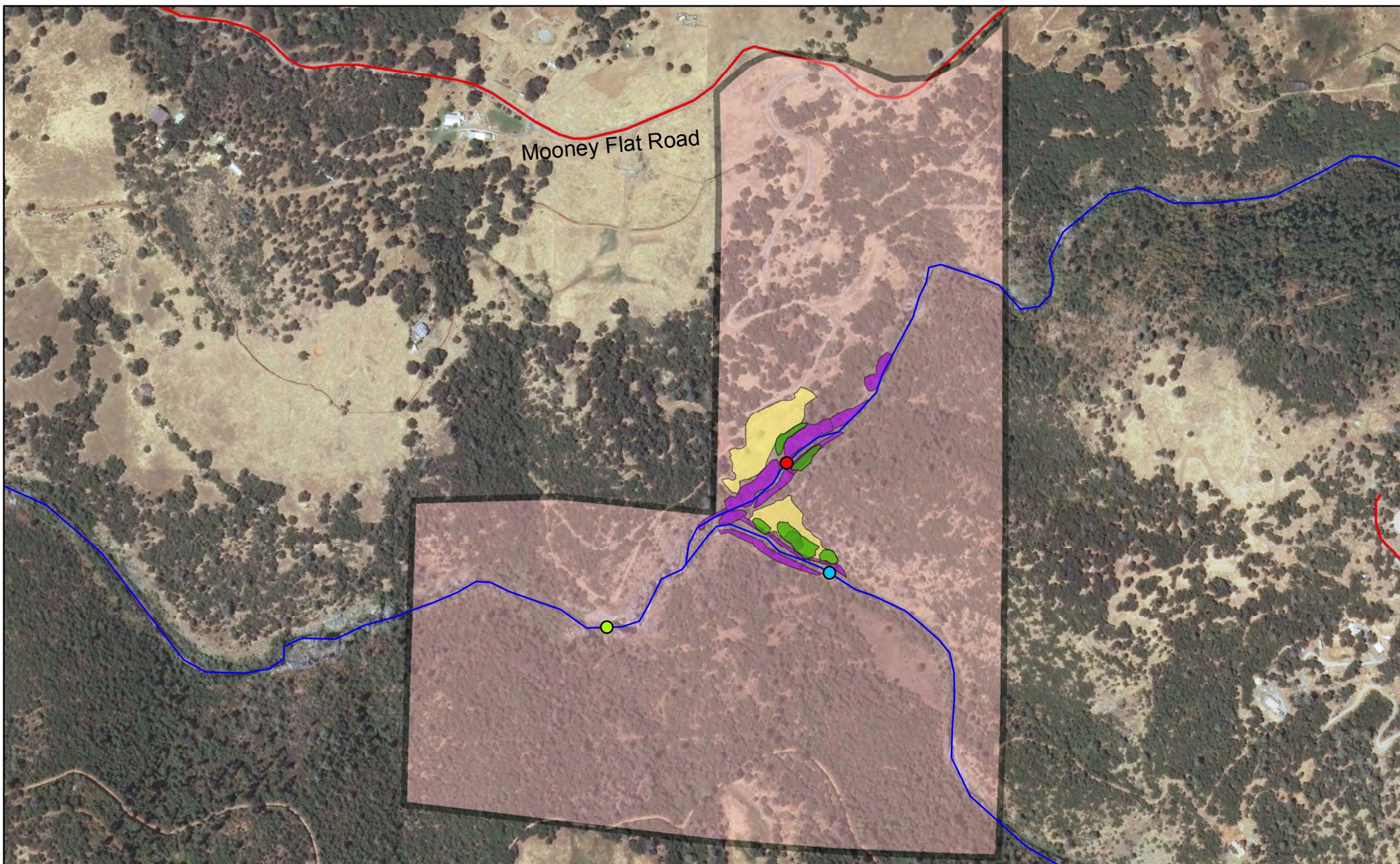
Sierra Streams Institute

Lower Deer Creek Revegetation Project

Site Plan - Topo



Miles
0 0.05 0.1 0.2
1 inch = 583 feet



Mooney Flat Road

Legend

- | | |
|--|--|
| ● Site 8 | ■ Scotch Broom Removal |
| ● Site 16 | ■ Himalayan Blackberry Removal |
| ● Site 9 | ■ Yellow Star Thistle Removal |
| — Creeks | ■ Restoration Property |
| — Roads | |

Sierra Nevada Conservancy 2012 Grants

Sierra Streams Institute

Lower Deer Creek Revegetation Project

Site Plan - Aerial



Miles

0 0.05 0.1 0.2

1 inch = 583 feet























**COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY**
950 MAIDU AVENUE NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9854 www.mynevadacounty.com/cda

Planning Department
Fax (530) 265-9851

Environmental Health
Fax (530) 265-9853

Building Department
Fax (530) 265-9854

Code Compliance
Fax (530) 265-9851

Housing Division
Phone (530) 265-1388
Fax (530) 265-9845

Agricultural Commissioner
255 S. Auburn Street
Grass Valley, CA
Phone (530) 273-2648
Fax (530) 273-1713

April 20, 2007

**NOTICE OF CONDITIONAL APPROVAL
TENTATIVE MAP**

William & Shephne Sheatsley
15930 India Flat Rd.
Nevada City, CA 95959

PM07-002; EIS03-109
AP# 50-010-22 & 50-010-23

Dear Mr. & Mrs. Sheatsley:

At the regular meeting of April 18, 2007 the Nevada County Zoning Administrator referenced Tentative Parcel Map, this is a refilling of previously approved Tentative Parcel Map (PM03-106), which has expired without recordation. Tentative Parcel Map proposing to create 3 clustered parcels and a 114-acre open space area, on property located at 13491 Mooney Flat Rd. Penn Valley, CA, subject to the following mitigation measures and conditions which are required to be completed **prior to map recordation**:

MITIGATION MEASURES:

1. **LAND USE / PLANNING:** To offset potentially adverse impacts to land use and protect open space values, the following mitigation measure is recommended:
 - A. Record map with designated building envelopes. Designated building envelopes for each parcel shall be delineated on the Supplemental Map. All above ground structures shall be limited to the designated building envelopes.
3. **GEOLOGY / SOILS:** To offset potentially adverse impacts to geology and soils, the following mitigation measure is recommended:
 - A. Erosion control measures and Best Management Practices shall be implemented to stabilize areas disturbed for driveway construction or other site improvements. Prior to any onsite disturbance, the Nevada County Building Department shall determine if a grading permit is required.
 - B. Grading plans shall include the time of year for construction activities. No construction shall occur after October 15 or before May 15 unless the Chief Building Inspector, or his/her authorized agent, determines project soil conditions to be adequate to accommodate construction activities.

7. **BIOLOGICAL RESOURCES:** To offset potentially adverse impacts to biological resources, the following mitigation measure is recommended:

A. **Creeks and Potential Wetlands.** Establish Deer Creek, Squirrel Creek and all other drainages, wetlands, and water of the United States on the property as Environmentally Sensitive Areas (ESAs) to avoid impacts to these habitats. The boundary of the ESAs shall be delineated at least 100 feet from the outer limit of the Deer Creek and Squirrel Creek riparian habitat shown on Figure 2 of the Biological Report, and designated on the Supplemental Map as "Environmentally Sensitive Non-Disturbance areas". Delineate a 50-foot non-disturbance buffer on potential wetlands in Lots Number 1, 2 and 3, and designate on the Supplemental Map as "Environmentally Sensitive Non-Disturbance area".

- B. **Construction in Vicinity of Potential Wetlands.** Include the following note on the Supplemental Map and on all building and grading permits:

"To protect water quality and aquatic life in potential wetlands, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to:

- a) The contractor shall exercise every reasonable precaution to protect the wetland at the project site from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the drainage and shall be collected and removed from the site.
- b) Erosion control measures shall be applied to all disturbed slopes. No non-native grasses or herbaceous plant material shall be used for erosion control.
- c) Silt fencing (or filter fabric) shall be used between the potential wetland and work areas to catch any short-term erosion or sedimentation that may inadvertently occur. Measures may include but not be limited to the use of sediment basins, straw bales, and silt fences."

- C. **Oak Mitigation Plan.** In order to protect oaks that are not removed, and to replace oaks that are removed, the following mitigation will apply.

1. The following notes shall be placed on the Supplemental Map.

- "a) Plans and specifications shall clearly state protection procedures for oaks on the project site. The specifications shall also require contractors to stay within designated work areas and shall include a provision for penalties if oak trees are damaged.
- b) No vehicles, construction equipment, mobile offices, or materials shall be parked or located within the driplines of oaks that are to be preserved.
- c) Soil surface removal greater than one foot shall not occur within the driplines of oak trees to be retained. No cuts shall occur within five feet of their trunks.
- d) Earthen fill greater than one foot deep shall not be placed within the driplines of oak trees to be retained, and no fill shall be placed within five feet of their trunks.
- e) Paving shall not be placed in the vicinity of oaks to be retained.
- f) Underground utility line trenching shall not be placed within the driplines of oaks to be retained. If it is absolutely necessary to install underground utilities within the driplines of oak trees, the trench shall either be bored or drilled, but not within five feet of the trunk."

2. Delineate and label "Interior Live Oak Woodland, Greater than 30% canopy cover, Non-Disturbance Area except for individual trees or groups of trees designated for removal and revegetation within the Proposed Oak Revegetation Area"
 3. Delineate and label "Oak revegetation area" on the Supplemental Map. Attach Appendix F and Appendix G of the Biological Inventory to all grading and building permits. A biologist shall inspect the property for consistency with this plan prior to issuance of a "Certificate of Occupancy" on any building permit and prior to any final on grading permits.
- D. **Nesting birds.** To avoid impact to nesting birds if tree removal is proposed, the following mitigation will apply to construction activities associated with the project. The following notes shall be placed on the Supplemental Map.
- If tree removal will occur during the nesting season (February through July), pre-construction surveys should be conducted in forested areas for nesting birds. Surveys shall be conducted by a qualified wildlife biologist.
 - Surveys shall be conducted no more than 14 days prior to the initiation of tree-removal activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through July).
 - If the surveyor deems that an active bird nest is close enough to the construction area to be disturbed, he or she should (in consultation with CDFG) determine the extent of the construction-free buffer zone to be established around the nest.
 - Trees shall be removed outside the nesting season (February through July), or after a qualified wildlife biologist verifies that the nest is empty and the adult and young birds no longer use the nest tree
- E. **Open Space / Working Landscape.** Delineate the area identified for designation as "Commonly-owned Open Space, Non-Disturbance Area." This area may be used to support agricultural production. Establish a Home Owners or similar association to provide for resource management and protection within this area.
15. **CULTURAL RESOURCES:** To offset potentially adverse impacts to cultural resources, the following mitigation measure is recommended:
- A. The following Note shall be placed on the Supplemental Map and incorporated into Building and Grading Plans:
- "All construction plans shall advise contractors and construction personnel involved in any form of ground disturbance, i.e. utility placement or maintenance, grading, etc., of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Planning Department contacted. A professional archaeologist shall be consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If human bone is encountered, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American Organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment."

Noise

All members are entitled to the "Quiet Enjoyment" of their premises.

First right of refusal

Any owner wishing to sell their ownership must first offer it for sale to the other existing owners at the prevailing market rate.

Open Space

The open space area shall be treated as a wildlife preserve.

Meadow Area

There is an meadow area by the creek delineated on the parcel map that is partially on private property. No structures are permitted within this boundary except by unanimous vote of all the members.

Article 11. Amendments to the By-Laws and C C & R's

Amending the By-Laws and C C & R's requires a unanimous vote of the membership.

Signed ,

For Parcel 1:

For Parcel 2:

For Parcel 3:

Stephne Sheatsley

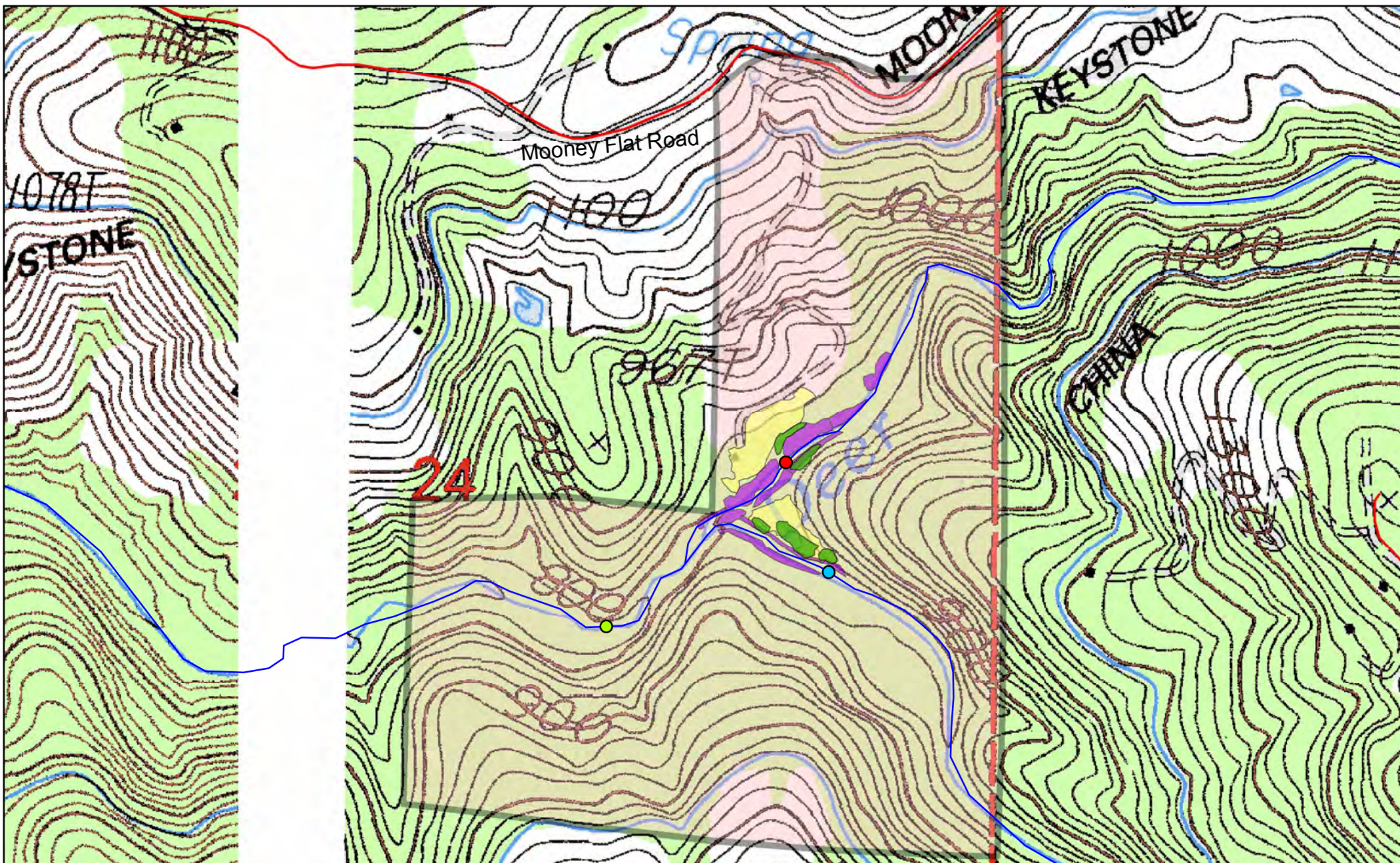
Sara Goldfarb

Jacqueline Peake Lessing

William Sheatsley

Paul Harley

Alan M Lessing



Legend

- | | |
|---|---|
| ● Site 8 | Scotch Broom Removal |
| ● Site 16 | Himalayan Blackberry Removal |
| ● Site 9 | Yellow Star Thistle Removal |
| — Creeks | Restoration Property |
| — Roads | |

Sierra Nevada Conservancy 2012 Grants

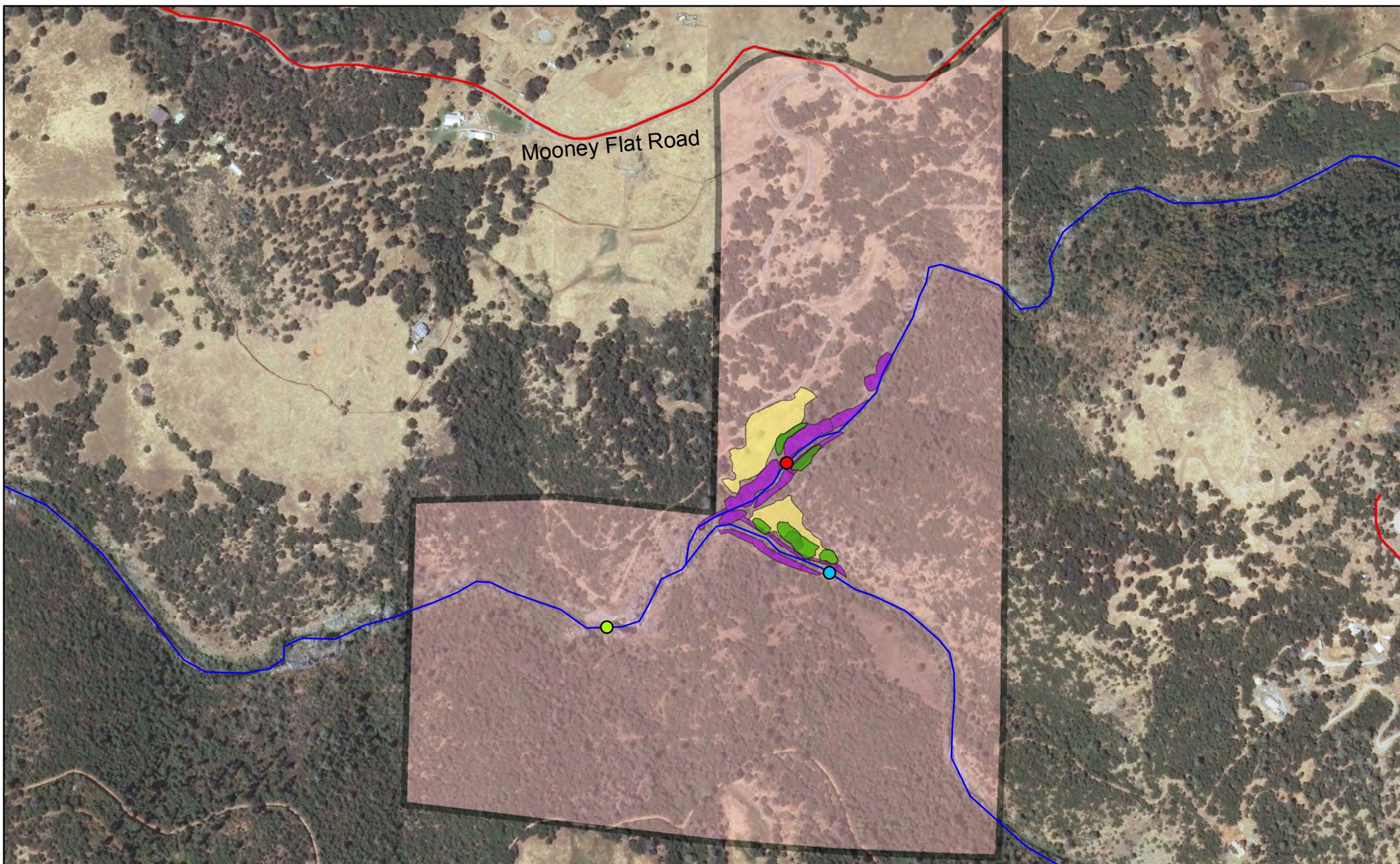
Sierra Streams Institute

Lower Deer Creek Revegetation Project

Site Plan - Topo



Miles
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1 inch = 583 feet



Mooney Flat Road

Legend

- | | |
|---|--|
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Sierra Nevada Conservancy 2012 Grants

Sierra Streams Institute

Lower Deer Creek Revegetation Project

Site Plan - Aerial



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